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Table of Contents.

An Address.[1]

By A. E. COATES, O.B.E.,

Retiring President of the Victorian Branch of the British Medical Association.

THE text of my address is to be found in the memorandum of our association stated three-quarters of a century ago: "To promote the medical and allied sciences and to maintain the honour and interests of the profession." I propose to deal with the subject in the order set out. It appears to me that the arrangement of the words of that text are especially worthy of consideration at the present time. This is the order of development of the doctor and his place in the community. In his early years, full of high ideals and with an urge to heal the sick, he devotes himself for almost a decade to the first half of the text, promoting by his studies the medical and allied sciences and equipping himself to further the second half, to maintain the honour of the profession; a few doctors continue as teachers and research workers to whom mankind owes much.

The Medical and Allied Sciences.

The renaissance of post-graduate teaching in the past two years, the splendid attendance at hospital meetings of the Branch this year, the inauguration and marked success of the lunch-hour meetings, such as those at the Royal Melbourne Hospital and the Alfred Hospital, remind one that there is no need to worry about the zeal of the younger men for clinical study. Many are taking higher degrees. All this is encouraging and is not in line with certain popular ideas that once a doctor graduates he ceases to study, that his medical education is complete.

It is appropriate to point out that the scientific side of the British Medical Association activities in Victoria have always been of paramount importance. From its early beginnings 101 years ago as the Port Phillip Medical Society, the meetings of doctors for scientific discussions and exchange of ideas have been regular and frequent events. The Medical Society of Victoria and its successor, the Victorian Branch of the British Medical Association, have carried on that tradition. From this body have gradually developed the Melbourne Permanent Post-Graduate Committee and various special sections of the Branch. The record of achievement of these organizations in the diffusion of scientific knowledge both in the metropolis and in the country is a matter for congratulation. The intimate liaison between this Branch and the Post-Graduate Committee needs no elaboration. Suffice it to say that your incoming president, Dr. F. Kingsley Norris, is the Director of Post-Graduate Studies for the Melbourne Permanent Post-Graduate Committee.

It is wise for us to remember that the Royal Australasian Colleges had their origins in associations of members of the Branches of the British Medical Association. The close collaboration of the Colleges with this Branch and the ready assistance in scientific as well as in organization matters which the Branch has received from the Royal Australasian College of Surgeons, such as the use of the College building for British Medical Association functions (for example, the Sir Richard Stawell Oration), are duly appreciated.

I have been impressed with the lively interest and splendid attendance at country subdivisional meetings. The monthly meetings of the Branch in Melbourne have not been so well attended by younger members of the Association. We have such a full and varied programme in the sectional meetings and in the special fields of the Colleges that there is a tendency to neglect the subjects of general interest which are the usual feature of our monthly Branch meetings. One must take care to maintain an interest in matters of general as well as of special importance professionally. Nothing but good can come of free discussion between general practitioners and specialists, and the monthly Branch meeting provides just that forum.

[1] Delivered at the annual meeting of the Victorian Branch of the British Medical Association on December 3, 1947.

In this connexion I draw members' attentions to the proposals for a new building. The Branch owns two houses in Albert Street, on the corner of Lansdowne Street overlooking the gardens. Tentative plans have been prepared by the Branch's architect. An enlarged lecture hall, an improved library and office space, will be available, and also—and in my opinion of great importance—a room for social functions. There will be a considerable amount of letting space. In view of the gradual eastward expansion of the city section of medical Melbourne, it is obvious that not only will such a building be a desirable asset, but it will provide a dignified home for the Victorian Branch of the British Medical Association: a visible manifestation in concrete form of the solidarity, prestige and strength of the British Medical Association in this State. Your financial interest in this structure will be invited at the appropriate time. I remind members of the increasing amount of work of the Medical Secretary and his staff. The Branch office is now a consultative bureau, handling personal problems as well as public relations. The British Medical Association Victorian Branch Legacy Fund and the Food for British Doctors Fund are commended to your continued interest and support.

The Allied Services.

So vast is the field of medicine today that it may be said to include some of most of the allied sciences and to impinge upon all. A development in marine engineering becomes of interest in an explanation of an anatomical structure—for example, the Michel block and the medial meniscus of the knee joint. An advance in physics finds its application in radiology. A discovery in electronics provides the human physiologist with a new means of investigation and the physician with a therapeutic agent. The dye industry has supplied the material for far-reaching developments in the perfection of new and powerful curative drugs. The educationist, the mathematician, the sociologist and the psychologist have contributed their quota to that ever-expanding body of knowledge which we call the science of medicine. In the practice of our art, we have today many assistants, men and women trained in special techniques, without whom we could not give our patients the help they have a right to expect.

The nursing sister, the X-ray technician, the biochemist, the bacteriologist, the dietetian, the physiotherapist, the psychologist, the occupational therapist, the social worker—the almoner—and also the dentist, the hygiene expert, the sanitary engineer, the hospital architect—these are some of our indispensable assistants; others are the hospital lay committees, business men, auxiliaries, Government officials and departmental officers, rehabilitation experts, an army of people, all interested in the welfare of the sick, all necessary in the modern ministry of the Good Samaritan. Even the inarticulate lower animals give their bodies for medical research.

It is wise for us to ponder these matters. We doctors today do our best work as part of a team. We are dependent on so many of our fellows. Proud as we are of the unique position we occupy and the prestige we enjoy, let us not forget that the whole is greater than the part, the organization bigger than the man. Nevertheless, any organization is only as good as the personnel which it comprises. It is said that doctors are individualists. The problem of modern medicine differs in no way from the general problems of mankind today—how to preserve the best in the individual and at the same time use him to the advantage of the team. I venture to suggest that within the medical field this problem has been at least partly solved. I can see no reason why in the larger field of the body political and social a solution should not be found.

The relation of the doctor to his professional assistants is a vital one. I refer especially to the nurse, and the problem of nursing today. The dependence of the nursing profession on the medical profession is obvious. Doctors lecture to nurses, examine them, sit on boards and colleges and generally advise them; but the doctor cannot do without the nurse. In fact, we must admit that frequently it was not our skill or dexterity but the devotion of a good nurse, the happy cooperation between patient and sister, which were mainly responsible for the cure. Fortunate it is that there are still women who carry on their duty despite the forty-hour week and agitation for this, that and the other privilege. As I stated in my evidence before the International Tribunal of the Far East, the outstanding condemnation of the Japanese in their treatment of prisoners of war was in their failure to care for the sick. We are proud of the nursing profession in Australia. Let us see to it that the milk of human kindness is not turned sour by short temper and forgetfulness on the part of the doctor. A word of encouragement in season will lighten the nurse's burden more than a punctual relief of duty. Remember that the nursing sister carries out our orders, but she has the duty of being in constant attendance. While we perform our function and depart, she remains to comfort and console and to complete the cure.

The close link of this Branch with organizations interested in the welfare of humanity is illustrated by the long list of committees on which we have representation (see the annual report). A review of the minutes of the executive of the Council will show how intimately the association is bound up with everything which concerns the medical welfare of the community. A consideration of the reports of the Federal Council published regularly in THE MEDICAL JOURNAL OF AUSTRALIA clearly indicates that the profession is held in high regard and that its opinions are welcomed by Ministers of the Crown, by Government officials and by leaders of our national affairs. Perhaps the training of the doctor in diagnosis gives him an insight into human affairs, an appreciation of trends and tendencies, which compel the attention of the public in times of stress. The term "horse leech" or "barber surgeon" is no longer applicable. The cynic might possibly refer to some of us as hewers of wood and drawers of water. The record of the medical services in the recent war and the high prestige of members of our profession on the national stage encourage the belief that men of our profession are destined to play an important role in the affairs of the Australian people.

There is no field of human endeavour with which medicine is not linked. At the beginning and end of life, as well as in the long intervening years, the doctor plays his part. The excellence of a civilization may be measured in terms of its medical services, individual and communal.

The great doctors of a century ago were men of wide culture, the humanities providing a background for the smaller body of scientific knowledge. Today all is changed; the medical course is so loaded with scientific lore that cultural training in the older sense must be neglected. Let us then after graduation obtain as wide a culture as possible, broadening our base by wide reading and many contacts with our fellows in other walks of life. If we specialize, let us see that the foundations are well and truly laid, and that we bring to our specialty mature judgement based on the consideration of the patient as a human being and not just as a collection of organs. The allied sciences become increasingly important as specialism of necessity absorbs a greater number of the practising members of the medical profession.

The Honour and Interests of the Profession.

The phrase "the honour and interests of the profession" has been variously interpreted by critics. The commercially inclined and the small minded have referred to our association as the strongest trade union in Australia. I would not refute the suggestion—in fact, it may be regarded as a compliment in these days. It is well that we are a closely knit body whose collective opinion is respected and whose influence is so strong.

I need hardly remind members that the Hippocratic oath is morally binding, and that the public confidence which reposes in the doctor is justified. The British Medical Association has been careful to guard the honourable reputation of its members, and your ethics sub-committee has played its part in exercising the necessary discipline in a tactful manner so that the high standards of ethical conduct are maintained. Junior members may at times feel apprehensive, but their fears are unwarranted. They are justifiably respectful of the ethics sub-committee, the members

of which are experienced in practice and mature in judgement.

Sympathetic consideration is always given by the Council to all matters which relate the profession to the public weal. There is never any suggestion that the other party to a discussion is not as sincere as the members of the Council. It has not been customary for this Council to prejudge an issue without hearing the other side. The attitude of this Council has been, on the whole, cooperative and helpful, and I trust that this reputation for fair play and honest dealing will be maintained in the future. Through the medium of the Federal Council it will be necessary for us to continue to express our views to other bodies, notably to Ministers of the Crown, and to Government officials. We shall express our opinions without fear and without prejudice.

Political expediency has no place in the conduct of affairs by an organization which has a tradition such as ours.

As a party to discussion in which the health and well-being of the people of this country are concerned, we offer advice as medical, not as political, experts. While we adhere to that principle, our position is unassailable. We shall cement the bonds which unite us on professional grounds, at the same time retain the healthy respect of the laity with whom we have to negotiate.

The interests of the profession have ever been those of the individual doctors which comprise it. It is usual for the doctor to place the patient's welfare above his own comfort and material interests. From experience of over a quarter of a century in public hospital, in private practice, and more especially recently in Japanese prison camps, I am proud of the selfless devotion of my colleagues.

This tradition of service is not peculiar to our profession. One has observed men and women in many walks of life who were capable of devotion and loyalty under the most depressing conditions. In these days, however, we must beware of the prevailing disease, the eager search for comfort, for short hours of work, for easy money, for privileges claimed and assumed as rights.

It may be feasible to organize our professional work in accordance with the wishes of the Government of the day, allowing some of the financial burden to be borne by the Government. It seems not unreasonable that the best that modern medicine can provide should be made available at public expense for all members of the community. In fact, that provision is being made for increasing numbers of the people today; I refer to the Government financial aid to public hospitals and the enlarging repatriation medical benefits, public health *et cetera*.

Man is regarded by anthropologists as the most adaptable of the mammals, hence his supreme position in the animal kingdom. By virtue of their education and training, medical men are certainly no less adaptable than other members of the human race. In fact, recent experience has taught me that they are more adaptable than most, hence their preeminent positions in the genus.

These observations lead me to think that the problem of fitting our professional work into the broad framework as envisaged by the people of this country is not insoluble. Competition must not be stifled and there must be a preservation of incentive in some form.

The three-point plan for discussion as laid down by this Council and endorsed by a general meeting of the Branch seems to provide a suitable basis for discussion between the medical profession and the Commonwealth Minister for Health. Whatever the outcome, we must retain a clear conscience, and insist on the freedom of patient and doctor as far as the machinery of modern medical practice will permit.

We are aware that a Government medical service might become a huge machine operating for itself, that the patient might be submerged, that his interests might become subservient to those of the department. These are dangers which can be avoided only by the preservation of the right of free criticism, by the maintenance of a high standard of individual morality, and by the retention of a competitive private system of practice to which the patient may turn if he so desires. It is doubtful whether the family doctor could be effectively replaced by the medical official. Under the present Australian constitution there is little to fear in this regard. Provided no indirect, economic or other form of coercion is exercised by the Government, there is no reason why a public medical system comparable to our public hospitals and repatriation department medical services should not run parallel to a private medical system, just as education is a State or private affair as the citizen elects. These matters may be left to the Federal Council. Time and patience will be called for not only from zealous politicians, but also from our profession. In a democracy, in vital affairs, the exchange of ideas, the meeting in committee, the round-table conference, the reference back to Branches and thence to individual members or electors—these are the cumbersome but absolutely necessary measures without which decisions are made which can only be regarded as dictatorial.

We have recently been engaged in a war to preserve our democratic way of life, to respect the minorities. We expect from our political leaders, whatever party they represent, a sacred observance of the democratic principles, and we, as learned professional men engaged in the calling of our choice, conscious of our lofty mission, individually and corporately will reciprocate. This will require a lively interest by all our members in the activities of the Council and call for statesmanship of a high order from our Federal representatives.

Even if the Australian people should allow themselves to be shackled by an outmoded national socialist system, which I do not really believe, there would not be found wanting men of our profession who would do their duty by their patients, who could care for the sick and take the consequences.

I have witnessed, during the past few years, just such a struggle on behalf of the ill and disabled, and I am not sure that the fires of persecution did not sharpen the edge of medical faith and sublimate in the crucible of affliction a finer medical specimen. The hardships of war are not without compensation. In the words of Bacon: "Men's thoughts are much according to their inclination, their discourse and their speeches according to their learning and infused opinions, but their deeds are after as they have been accustomed." Let us, therefore, face the future without apprehension, true to our early ideals, ready to meet any emergency, medical or otherwise, with equanimity. Thus we shall continue to deserve the esteem of our fellows, promoting the medical and allied sciences and maintaining the honour and interests of the medical profession.

FIBROCYSTIC DISEASE OF THE PANCREAS: A REVIEW OF FOURTEEN CASES.[1]

By DAVID PITT, M.B., B.S. (Melbourne),
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FIBROCYSTIC DISEASE of the pancreas is a disease which is becoming more and more frequently diagnosed in children. Since Passini described his case in 1919,[(1)] several isolated reports have appeared, including one by Margaret Harper,[(2)] of Sydney, in 1930. In 1938 Dorothy Andersen[(3)] in America reported a series of 49 cases, and the disease began to emerge as a definite clinical entity. Since then much work has been done on this subject, chiefly in America, by Andersen. In 1946 Blaubaum reported two cases from the Children's Hospital, Melbourne, and the present series consists of a further twelve cases that have been recognized at the same hospital since the publication of Blaubaum's work.

The clinical features of the disease are as described by the above authors; in brief, the outstanding stigmata are under-nutrition, steatorrhœa, and chronic respiratory

[1] Read at a meeting of the Melbourne Pædiatric Society on July 9, 1947.

infection. Andersen describes three groups of cases, neonatal, infantile and childhood. In the neonatal group the infants die within two weeks of birth, usually from intestinal obstruction, due either to inspissation of meconium (meconium ileus) or to atresia of the small intestine. The former condition is due to non-digestion of meconium, which may become impacted, usually at the ileo-caecal valve. The infantile group consists of infants that survive to the age of six months. The childhood group consists of older patients. In Andersen's series (1938) are included one aged fourteen and a half years and another aged ten years. In the series here reviewed, the oldest are two girls, aged respectively nine and ten years, in both of whom an outstanding feature found at post-mortem examination was severe cirrhosis of the liver. A search of the literature has failed to find reports of other cases in which the patients were as old as these four, the majority having died before the age of five years. The present series is therefore unusual, in that all fourteen patients fall into Andersen's third group.

Of the fourteen patients, nine have died, and five are alive at the present time, undergoing treatment. What the future of these five will be is a matter of keen interest, as our lack of knowledge of the disease has hitherto precluded specific treatment. The realization that fibrocystic disease of the pancreas is essentially a deficiency disease, the deficiency being in the external secretion of the pancreas, would seem to provide grounds for optimism. Replacement of the deficient element may well be as effective in this as in other deficiency diseases (for example, the deficiency of internal pancreatic secretion in *diabetes mellitus*). Twelve of the series are girls. This preponderance of females has not been observed in other reported series.

Family History.

It was soon realized by American investigators that the disease had familial and hereditary characteristics. Andersen reached the following conclusion:

> Cystic fibrosis of the pancreas occurs among siblings, twins, and more distant relatives with a distribution that is compatible with the hypothesis that it is carried as a relatively infrequent hereditary trait.

Full family histories were not obtained in most of the cases now considered, but a familial incidence is likely in the following three instances. (i) The patients in Cases II and III were sisters; another sister was stillborn. (ii) In Case IX a sister of the patient had died the previous year at the age of nine months. Death was recorded as due to bronchiectasis. Though the pancreas was not examined *post mortem*, a fibrocystic lesion appears likely. (iii) The child in Case XIV had an elder brother under treatment for cœliac disease. A sister had died at the age of six months from bronchopneumonia. The father had a brother and sister who died in infancy—one of pneumonia. This history is suggestive of hereditary fibrocystic disease of the pancreas.

Onset.

Except for Cases VI and VIII, the onset of symptoms occurred within the first few months of life—often within the first few weeks. These symptoms were in about half the cases abdominal, and in the remainder respiratory.

Presenting Signs.

Bowel abnormalities were commonly noted, often with bouts of diarrhœa and the passage of large pale stools, usually offensive in odour. In some cases the stools, though found to be fatty by chemical analysis, have appeared normal; inexperienced mothers may not notice any stool abnormality. Respiratory symptoms included cough, present in some instances from birth. It was usually dry at the onset, becoming moist only when purulent bronchitis or bronchiectasis had supervened. Wheezing was often noted, and cough was sometimes associated with a whoop or with vomiting, so that these children were often thought to suffer from whooping-cough. Recurrent upper respiratory infections, bronchitis and bronchopneumonia were almost invariable; in two cases (VIII and XIII) these episodes were associated with night sweats, and the children were initially suspected of pulmonary tuberculosis.

Clubbing of the fingers was noted in eight instances and cyanosis (a bad prognostic sign) was a common feature of advanced cases. Chest deformities were commented on in four cases, three children exhibiting pigeon chests. Nutrition was uniformly defective (before treatment), the signs being the cœliac facies, pot-belly, wasted thighs and buttocks, poor muscle tone and loss of subcutaneous fat. Though the weight of the patients was unsatisfactory, the appetite (in contrast to that of true cœliac disease) was usually good—at times ravenous. This symptom contrast is seen in two other metabolic disorders—*diabetes mellitus* and thyreotoxicosis.

In diabetes and fibrocystic disease of the pancreas, wastage of Calories occurs in the urine (glycosuria) and fæces respectively; the engine is efficient, but the fuel leaks and extra fuel is needed. In thyreotoxicosis the engine may be said to become overheated and inefficient, and so again will demand more fuel.

Investigation of the blood picture, where recorded, showed mild secondary anæmia. The liver in fibrocystic pancreatic disease, again in contrast with cœliac disease, was usually recorded as clinically enlarged. The post-mortem reports record enlarged and fatty livers in five of the nine fatal cases. In the two older children (Cases VI and VIII) a remarkable degree of cirrhosis was present. Andersen (1938) points out the high incidence of fatty livers (21% of group II, 60% of group III) and records three cases of biliary cirrhosis in children aged over two years, and the occurrence of Laennec's cirrhosis in a child aged ten years; the last-mentioned case is comparable with the two present examples. It would seem, then, that defective pancreatic function is associated with fatty accumulation in the liver, which, in patients who survive, gives place to multilobular coarse cirrhosis. This process would be therefore closely analogous to that occurring in dogs from which the pancreas has been removed and which are kept alive by injections of insulin.

In 1924 Allan, Bowie, MacLeod and Robinson[6] noted large fatty livers in insulin-treated dogs deprived of the pancreas. This fatty change was prevented by the inclusion of raw beef pancreas in the diet, and also by the introduction of crude lecithin, the active component of which was found to be choline. Other proteins have been found to have a lipotrophic effect on the liver, including casein, the action of which is due to its content of methionine, which transfers its methyl group to ethanolamine with the formation of choline. Lack of these lipotrophic factors results in fatty infiltration of the liver and eventually in cirrhosis. The suggested analogy between dogs deprived of the pancreas and controlled by insulin, and patients with fibrocystic disease of the pancreas, may be set out as in Table I.

TABLE I.

Observation.	Dog.	Child with Fibrocystic Disease of Pancreas.
Pancreas ..	Removed surgically.	External secretion deficient or absent.
Condition of bowels.	Steatorrhœa.	Steatorrhœa.
Insulin ..	Supplied by injection.	Islet tissue of Langerhans always intact.
Liver	Fatty infiltration, progressing to cirrhosis (prevented by administration of pancreas by mouth, also by casein).	Fatty infiltration, perhaps progressing to cirrhosis. (Possibly will be prevented by pancreatin treatment. Inclusion of casein as a therapeutic agent might be considered.)
Cause of liver disease.	Lack of lipotropic factors (methionine and choline) liberated from combination by pancreatic enzymes.	Possibly same cause.

Diagnosis.

The clinical diagnosis of fibrocystic disease of the pancreas should be made whenever the cœliac syndrome is associated with evidence of lung disease. It should be remembered that an abnormal bowel history is sometimes lacking. The disease should also be suspected in the following clinical circumstances: (i) presentation of infants in the first few days of life with signs of intestinal obstruction; (ii) "failure to thrive"; (iii) severe lung infections or bronchiectasis in infants or children, particularly if these are associated with an abnormal bowel history, undernutrition, or a family history of deaths in infancy, and especially when the infection is resistant to sulphonamide and penicillin treatment; (iv) the cœliac type of case; (v) severe non-tuberculous lung disease and enlargement of the liver in older children; (vi) evidence of vitamin *A* deficiency. Xerophthalmia, keratomalacia and corneal ulcers have been described in the literature,[3] together with post-mortem evidence of keratinization and epithelial metaplasis in the bronchi and other epithelium-lined structures. In ten of Andersen's original series of forty-nine cases there was evidence of vitamin *A* deficiency. Biochemically, the vitamin *A* absorption curve is characteristically subnormal and serum vitamin *A* levels are low. No such observations have been made in the present series, though I have formed the impression that the patients' skins have tended to be dry and rough to the touch.

Biochemical Investigation.

Estimation of the fat content of the stool is the first investigation to be carried out when clinical suspicion of fibrocystic disease of the pancreas is aroused. Though it would seem to be the practice in America to make a total twenty-four hours' estimation, the result being expressed as grammes of fat per twenty-four hours, the total fat content of one stool only has been used here, and has seemed sufficiently accurate for diagnosis. Figures for the total fat in the stool in this series range from 36% to 97%, the average being 55% of dried fæces. The figure for normal children is usually below 30%, and in cœliac disease the figure is higher than in fibrocystic disease.

Estimations of percentage of split fat have also been made. As fibrocystic disease is a failure of fat digestion and cœliac disease a failure of fat absorption, the percentage of split fæcal fat should be low in the former and high in the latter. Though this clinical distinction is occasionally observed, in this series the split fæcal fat percentage has been uniformly high. Andersen[7] has shown that breakdown of fat occurs in a stool after its evacuation, presumably from the action of either intestinal lipase or bacteriæ. The older the stool, therefore, the higher the figure of fæcal split fat, and determination of the latter may be quite misleading. Andersen[7] recommends the microscopic examination of fæces stained with filtered Sudan IV as a quick, simple method of separating patients with steatorrhœa from normal subjects.

Creatorrhœa.—Loss of protein in the fæces has hitherto been overshadowed by the obvious fat loss, and it is now being realized that fibrocystic disease of the pancreas is a disability affecting protein as well as fat metabolism, the former perhaps being the more important. Protein loss is reflected clinically in the poorly developed muscle tissues, in the defective general nutrition, and in the deficiency effects on the liver and possibly also on the lungs. No studies of fæcal nitrogen have been made in this series.

Assay of Pancreatic Enzymes.—The method of assay of pancreatic enzymes described by Blaubaum has been used in the study of the children in this series. Tryptic activity has been uniformly depressed, volumes of duodenal content have been small, and there has been little or no response to pancreatic stimulation by the introduction of acid into the duodenum. The procedure of collecting duodenal juices appears to be exhausting, particularly to infants and sick children. Death appears to have been precipitated in two cases (II and XIII) by the necessary manipulation. It is therefore recommended that the patient's condition be carefully assessed before this diagnostic method is instituted, and that when necessary it be deferred until the patient's condition has been sufficiently improved by the administration of a suitable diet, and of pancreatin, penicillin and vitamins; at this stage pancreatin administration may be temporarily discontinued while the confirmatory assay is made.

Other Biochemical Data.—The vitamin *A* absorption curve is always subnormal, and the serum vitamin *A* level is low. In the glucose tolerance test normal or low blood sugar levels are recorded.

Recently[8] studies have been made of protein metabolism by means of blood amino acid absorption curves, and it has been determined that normal children and children with cœliac disease show a rise and fall over three hours of one to four milligrammes per 100 millilitres of blood amino nitrogen above the fasting level. In fibrocystic disease of the pancreas, with gelatin and casein as test substances, the curve scarcely departs from the fasting level. This test has been suggested as a diagnostic procedure. When predigested casein (casein hydrolysate) is used, the absorption curve approaches the normal, whilst the addition of pancreatin to the diet restores it completely to normal.

These findings emphasize the value of pancreatin, and the need for extra protein, preferably predigested.

Radiological Investigation.

Neuhauser[9] has described the radiographic appearances of the lungs which he regards as characteristic of the pulmonary changes associated with fibrocystic disease of the pancreas. He mentions two stages, a stage of emphysema or atelectasis and a stage of infection. In the first stage the emphysema or atelectasis is contingent on partial or complete obstruction of the bronchi or bronchioles. This corresponds clinically to the early bronchitic phase, with which is associated the pertussis-like cough, and precedes the onset of infection, destruction of bronchial epithelium and bronchiectasis. In the stage of infection the hilar shadows are greatly accentuated, even to a degree which may obscure the cardiac outline and give the appearance of a fluffy circumcardiac halo. This characteristic halo has been a point for comment in several cases in this series (Cases I, VII, X, XI and XIV). Unfortunately the films are not available for a comparative review.

Neuhauser also describes shadows in the lung fields characteristic of peribronchial infiltration; these are often confluent and suggestive of pneumonia. These fluffy patches have been frequently seen in films in the present series, and have been described as "bronchopneumonia", "infiltration of almost miliary dimensions", "wandering bronchopneumonia", and so on.

Bronchiectasis is difficult to identify on a plain film; bronchography in Case XI failed to reveal it.

Diagnosis Post Mortem.

It is to be hoped that the opportunity for making a post-mortem diagnosis will become less and less frequent. The pathological findings are definite and will be reviewed in brief.

The Pancreas.—The lesion is progressive. In Andersen's group I the pancreatic lesion is said to be one of mild fibrosis, with normal numbers of acini, a few only of which may be distended with eosinophilic material. In older infants the acini may disappear and be replaced by fat, cysts may be more numerous, and fibrosis is again present. The mature lesion is as described by Dr. Reginald Webster in the present series; the picture is that of complete disorganization of the lobular pattern and prominence of wide bands of fibrous tissue. Cysts of varying size are numerous, with flattening and all degrees of destruction of the acinar lining epithelium; inspissation of structureless and often lamellated material in the dilated acini is conspicuous. In many respects the section as a whole bears a remarkable resemblance to the histological picture of chronic interlobular mastitis. Islet tissue is always present.

The Lungs.—The pulmonary lesions consist of chronic purulent bronchitis, often associated with tubular bronchiectasis, bronchogenic abscesses, bronchopneumonia and

emphysema. *Staphylococcus aureus* is usually the infecting agent.

The Liver.—Reference has been made to the fatty infiltration in early cases and the cirrhosis present in later cases. Hypoplasia of the gall-bladder has frequently been described, and was present in Case XIII of this series.

Clinical Course.

In untreated fibrocystic disease the course is steadily downhill, and a fairly characteristic picture has been seen in the children in the group under discussion.

Just as the pancreatic lesion is progressive, so is the pulmonary condition, and it is this which determines the death of the patient. When the early bronchitic phase is overtaken by the later infective phase the unfortunate child appears to be caught in an irreversible chain of events. Drowning from the saturation of his lungs by staphylococcal pus, he becomes intermittently and finally constantly cyanosed and very distressed, his wasted body struggling for breath. Oxygen, penicillin and sulphonamide have little or no effect. In infants the weight falls steadily till death puts a full stop to the declining graph of the weight chart.

In the case of the children now under observation it is a little soon to assess their clinical course; but so far the outlook seems not altogether gloomy.

Management of Fibrocystic Disease of the Pancreas.

The following suggestions are made from conclusions reached in the review of the present series, and are also based on the experience of American clinicians, chiefly Andersen.

Clinical History.

When the combination of cœliac and pulmonary symptoms is present, fibrocystic disease should be suspected and attention should be directed particularly to the following points.

Family History.

The family history should be investigated. It should be determined whether there are others in the family with similar symptoms, whether any children have died in infancy, particularly of intestinal obstruction, pneumonia or debility, and whether there was any such history in the mothers' or father's family.

Bowel History.

With regard to the bowels, any abnormal symptoms should be sought. It should be asked whether the stools are offensive, or loose, or bulky. If so, at what age these features were first noted. Inquiry should be made into the effect of restriction or increase of fat intake on the symptoms. It is always to be borne in mind that bowel abnormality in the infant may not have been appreciated by an inexperienced mother.

Lung History.

With regard to the lungs, in addition to the usual questions, inquiry should be made of any use of sulphonamide or penicillin, and an attempt should be made to gauge the therapeutic effect, in the event of these drugs having been used. It should also be asked whether the child was ever regarded as suffering from whooping-cough.

Investigation.

Unless the child is in exceptionally good condition it is suggested that a stool be sent immediately for fat analysis and then that pancreatin therapy be commenced. In this series four patients (Cases III, IV, IX and XIII) died whilst awaiting duodenal assay for the confirmation of diagnosis. No effective substitution therapy was therefore given and the children slipped through clinical fingers. If pancreatin is as specific as is hoped, more lives will be saved if the child is immediately made as fit as possible with pancreatin, penicillin, diet and vitamins; when the child's condition is sufficiently improved the administration of pancreatin may be temporarily discontinued, pending the confirmation of diagnosis by duodenal assay. While estimation of the total fæcal fat is important, estimation of split fat, for reasons already given, is not very helpful, except that the obtaining of a low figure will exclude true cœliac disease.

Radiography.

Radiographic examination of the child is an obvious measure.

Diet.

For these infants and children the hospital standard cœliac diets (1000 and 1200 Calories) have been used. In view of the caloric wastage in the fæces it is desirable that extra Calories be supplied, to a value of 30% above the theoretical caloric requirement for a normal child. Added protein is necessary, as it appears that not only does protein loss affect the general nutrition, but in addition it has a deleterious effect on the liver (from lack of lipotropic amino acids) and possibly on the lungs. Andersen,[10] as the result of metabolic studies, concludes that 25% at least of the Calories should come from protein.

Casein is a well-tolerated protein supplement, and supplies essential and protective amino acids. The recent work on casein and protein metabolism in fibrocystic disease has already been discussed. Egg albumen was used with good effect in Case X.

Andersen[10] concludes from her metabolic studies that the optimal diet is as follows:

> The protein should provide twenty-five per cent. of the Calories, the proportion of fat should be small, but eggs and fat soluble vitamins should be included, the carbohydrate should be provided in part as sugar, and for older infants and children part of it may be in the form of cereal starches and potatoes if these foods are clinically tolerated.

The use of "Bengerized" casein-fortified milk, as in Case XI, is a convenient way of increasing carbohydrate, protein and calorie intake and of providing a peptonized feeding of low-fat content. By the use of three-quarters of an ounce of pure casein in one pint of cow's milk, "Bengerized" with one ounce of "Benger's Food", a 30-Calorie per ounce mixture is obtained containing 9% of carbohydrate, 3·5% of fat, and 7·9% of protein. This gives a fairly concentrated feeding and may be broken down to a 20-Calorie per ounce mixture by the addition of half as much water; the resultant proportions are 6% of carbohydrate, 2·4% of fat, and 5·2% of protein. By topping or skimming the milk a still lower proportion of fat may be obtained if desired.

A feeding for a twelve-months-old infant may therefore be worked out as follows: theoretical caloric requirement (normal child), 900 Calories; for fibrocystic disease add 30% and plan a diet of approximately 1200 Calories.

In the case of children who are very underweight, the gap between the expected weight and the actual weight may cause too great and too sudden a caloric increase to be imposed on the child. The difficulty may be overcome by halving this gap and feeding the child to the caloric requirement of the mean of the two weight values, which weights should eventually all become equal. A sample diet would be as follows:

6 a.m.: "Bengerized" casein milk, 10 ounces (20 Calories per ounce).
Breakfast: Cereals, rusk and "Bengerized" casein milk, 10 ounces.
11 a.m.: Orange juice *plus* glucose, one to two ounces.
Dinner: Fish, scraped meat or rabbit, one ounce; sieved vegetables, portion; cereal or potato, portion, or banana; "Bengerized" casein milk, 10 ounces.
Tea: White of egg, one or two; rusk or crust with "Marmite", "Bengerized" casein milk, 10 ounces.

This is a variation of the "cœliac stage II" diet, with reduction of the banana, which Andersen states is less well tolerated than cereal or starch, and inclusion of extra protein in egg white and casein. Egg yolk and butter may be cautiously added later. The above diet gives approximately 1200 Calories, of which carbohydrate supplies 46%, fat 23%, and protein 30% of the total. By weight the diet would consist approximately of 50% of carbohydrate, 13% of fat, and 37% of protein.

Caloric Intake.—A careful watch on the caloric intake is essential, more so in this disease than in other illness of childhood. The Calories must be received—by gavage if necessary. In this series, on careful checking of the diets, four patients (Cases I, III, IX and X) were found to have received inadequate diets. The caloric intake of the first three children was even less than that planned, for their appetites suffered as they went downhill; they soon lost weight and died. The fourth was losing weight rapidly and seemed to be going the way of the other three when it was realized that the caloric intake was inadequate; when this was corrected the child began to gain in weight and has continued to do so. The following table on caloric requirements (Table II) is based on American figures, in which the average weights for infants are probably a little higher than in Australia.

TABLE II.

Age.	Average Weight (Pounds; Normal Child).	Daily Caloric Requirement.	
		Normal Child.	Child with Fibrocystic Disease (+30%).
Birth	8·0	400	—
1 month ..	9·0	450	580
3 months	12·7	500 to 600	650 to 780
6 months	17·0	700 to 800	900 to 1,000
9 months	20·0	800 to 900	1,000 to 1,150
12 months	22·4	900 to 1,000	1,150 to 1,300
15 months	24·7	1,000 to 1,100	1,300 to 1,450
18 months	26·5	1,100 to 1,200	1,450 to 1,550
24 months	29·3	1,200 to 1,300	1,550 to 1,700
30 months	31·7	1,300 to 1,400	1,700 to 1,800
36 months	33·7	1,400 to 1,500	1,800 to 1,950
3 to 5 years ..	34 to 40	1,500 to 1,600	1,950 to 2,100
5 to 8 years ..	40 to 55	1,600 to 1,900	2,100 to 2,500

Pancreatin.—Experimentally, the rise to favour of pancreatin in fibrocystic disease is justified by the work on blood amino absorption curves already noted. In the clinical field the use of pancreatin has been attended by encouraging results. Five patients (Cases VII, X, XI, XII and XIV) have remained so far in reasonably good health since they have received pancreatin regularly. With the exception of Case V, the patients in this series who died received no adequate pancreatin therapy. The response to pancreatin in Case VII was definite. For a period of two months, the child being in hospital, her weight remained stationary at about ten pounds. Pancreatin therapy was then instituted, and without any other change in treatment or diet she immediately began to gain in weight and has continued to do so in a satisfactory manner (see Figure I). The Parke, Davis preparation of "Panteric" tablets contains pancreatin (United States Pharmacopœia) triple strength, five grains per tablet. Pancreatin (United States Pharmacopœia) should digest at least 25 times its own weight in both casein and starch. Each tablet should therefore be able to digest 25 grammes of protein, and one tablet three times a day before meals should provide enough enzymic activity for any child. The capsules are "enteric coated"—that is, coated with a preparation impervious to gastric acidity, but soluble in the alkali of the duodenal juice. In the diets recommended by Andersen four to six grammes daily of pancreatin are mixed with the food. As pancreatin is incompatible with acid, this procedure seems less rational than the method outlined above.

Vitamin Therapy.—In addition to the usual vitamin supplement incidental to the nursing of children, special attention should be paid to vitamin *A*. Ample evidence of chemical, pathological and clinical nature has already been quoted to demonstrate the lack of vitamin *A* of untreated patients suffering from fibrocystic disease of the pancreas. It has been the practice in the treatment of some of the children in this series to give 50,000 units of vitamin *A* twice a week by injection. Rickets is practically an unknown complication of the disease, so vitamin *D* is not deficient. Courses of injections of the vitamin *B* series and liver extract have been used in the treatment of several of the children, partly because they were originally thought to be affected with cœliac disease and partly because of the analogy between fibrocystic disease of the pancreas and cœliac disease. Perhaps, too, there was the feeling that patients with enlarged livers should be given further liver by injection. However, the analogy between fibrocystic disease and cœliac disease is quite superficial and the two conditions differ essentially in biochemical mechanism. There is no evidence that there is any lack of vitamin *B* and hepatic principle, and there appears to be no rationale underlying their use. Vitamin *C* should be supplied in the normal way. One patient (Case VIII), who was extensively investigated, showed evidence of vitamin *K* lack, in that a low prothrombin index (13%) was restored to normal by a course of injections of vitamin *K*.

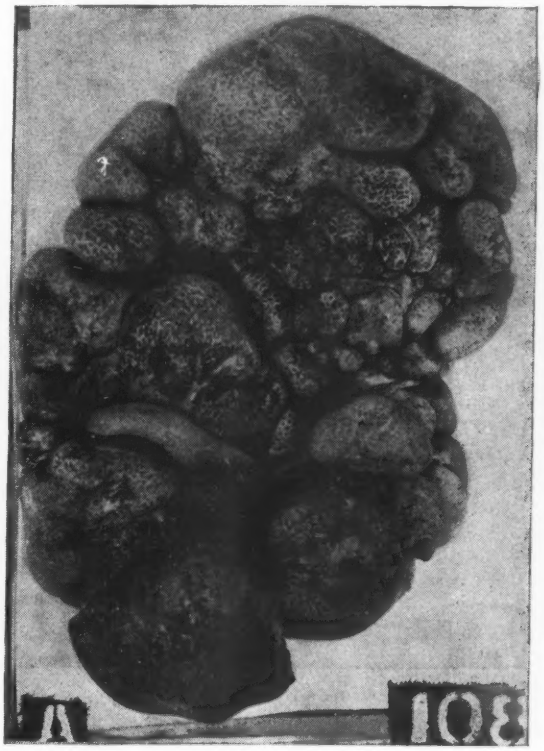

FIGURE I.
Case VI: cirrhosis of the liver.

Treatment of the Lung Disability.

Sulphonamide treatment and penicillin are, of course, sheet anchors in the control of the recurrent chest infection. Every effort should be made to shield the child from unnecessary infection, and he should not be retained in hospital long after the diagnosis has been made and his metabolism stabilized. The child in Case XIII contracted measles whilst in hospital; this undoubtedly contributed to her decline and death. The prophylactic administration of sulphadiazine (0·5 gramme per day) has been recommended by Andersen, to forestall the recurrent infections to which these children are prone; this is analogous to the prophylactic use of sulphonamides for rheumatic subjects and appears to be useful in the early bronchitic phase of fibrocystic disease. For the control of this stage Andersen also emphasizes the importance of proper dietary treatment, as it would seem to be true that

the later severe pulmonary phase may be aborted. Andersen concludes as follows:

> Drugs of the sulfonamide group are of value in the prophylaxis and treatment of intercurrent infection of the upper respiratory tract, but are ineffective after the stage of suppurative bronchitis has been reached.
>
> Penicillin may be effective in treatment of the infection after the appearance of respiratory distress and cyanosis. Failure in therapy may occur in cases in which the patient is infected with an organism which is resistant to the drug. The most satisfactory method of administering penicillin to patients with this disease is by inhalation alone (penicillin aerosol) or by inhalation in combination with intramuscular injection.

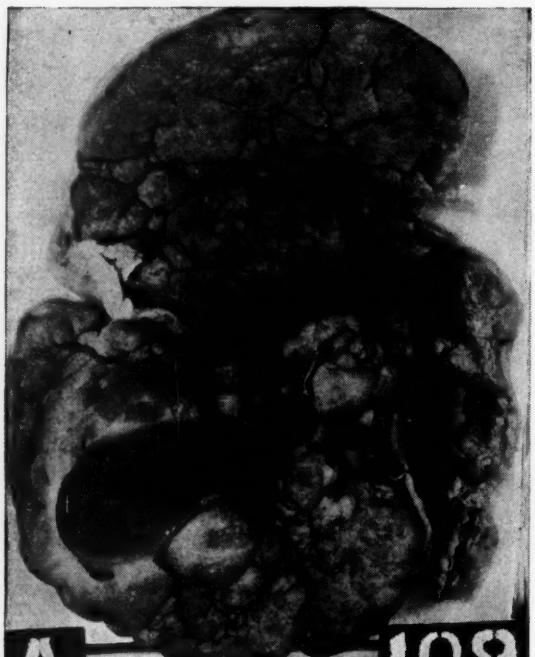

FIGURE II.
CASE VIII: cirrhosis of the liver.

(Here Andersen describes a special method of instilling penicillin into the bronchial tree with a nebulizer, an anæsthetic mask with rebreathing bag, and a stream of oxygen.)

> The mortality of fibrocystic disease has been reduced, and an increasing number of patients has been maintained in good health, and in a state of normal nutrition and activity. This has been accomplished by the following means: (*a*) an appropriate diet, begun promptly and continued consistently; (*b*) the use of sulphadiazine during the stage of chronic cough, both for prophylaxis and for treatment of intercurrent infections; and (*c*) the use of penicillin either by inhalation alone or by inhalation combined with intramuscular injection for the treatment of the terminal suppurative bronchitis.

Reports of Cases.

The following are reports of the cases in the present series. Cases I and II have already been described by Blaubaum.[6]

CASE III.—V.McA., sister of the child who provided Case II, was first admitted to hospital in July, 1945, at the age of two months, one month after the death of her sister. She was suffering from bronchitis and was discharged after three days. She was readmitted to hospital in October, 1945, with a history of bronchitis that had not responded to treatment and was of some months' duration; she was pallid and had been passing loose stools, about six per day, yellow to green in colour. On her admission to hospital her nutritional state was fair (weight eleven pounds six ounces at six months), the lungs and heart were clinically normal, the abdomen was protuberant and the liver was palpable. The clinical diagnosis of fibrocystic disease was made, and the fæcal fat was found to be 52% of the dried fæces, 71% being split fat.

Shortly after her admission to hospital the child developed an upper respiratory tract infection, which responded in seven days to sulphamerazine. The child was given a diet of "Topped A 5" 40 ounces per day. She did not get all of this and received less than 500 Calories per day, though a normal baby of the same age would require over 600 Calories. On this inadequate diet she lost weight rapidly, 22 ounces in the course of one month; at the end of this period she died of undernutrition and bronchopneumonia. The baby had been treated with sulphamerazine and penicillin for recurrent bronchopneumonia, whilst treatment with vitamin *A*, vitamin *B* and liver extract was commenced just before she died. No pancreatin was used.

Prior to death X-ray examination revealed infiltration in both lung fields, most prominent in the upper lobes. The Mantoux test was performed; the intradermal injection of 0·1 millilitre of 1:1000 dilution of old tuberculin produced no reaction. The hæmoglobin value was 96%.

A post-mortem examination revealed extensive purulent bronchopneumonia, mediastinal adenitis and a fatty condition of the liver. The pancreas was undersized, and in microscopic sections broad bands of fibrous tissue were seen between the lobules, together with periacinar fibrosis, aggregation of round cells and dilated acini with structureless content.

CASE IV.—L.L. was first admitted to the Children's Hospital in August, 1945, at the age of four months; she was suffering from an upper respiratory tract infection. It was stated by the parents that she had had a wheeze and difficult breathing since birth and a tendency to vomit after meals. She was discharged from hospital after a week, but returned next month with a history of increased vomiting. On her readmission to hospital she was dyspnœic, and was thought to have a congenital laryngeal stridor, as rib retraction was exaggerated. The child was pigeon-chested; the abdomen was protuberant and the liver was enlarged by two fingers' breadth. The child was treated for bronchitis, and whilst in hospital was noticed to whoop. Despite a caloric intake adequate for a normal child of the same age (500 to 600 Calories per day), the child progressively lost weight and died on December 1, despite treatment with sulphadiazine, penicillin and vitamin *B* and liver injections. Pancreatin was administered "crushed" for the last three weeks. It was determined that the fæcal fat represented 56% of the dried fæces; of this 82% was split. An X-ray examination of the chest revealed no abnormality.

At the post-mortem examination the upper respiratory tract and the thymus were normal. Suppurative bilateral bronchiectasis with emphysema and mediastinal adenitis was found. The pancreas was small and firm, and the changes found in it on microscopic examination were described as typical of fibrocystic disease.

CASE V.—L.G. had been treated for cœliac disease since the age of six weeks with little improvement. She was first examined at the hospital in July, 1944, at the age of three years, on account of a fractured skull; she was soon discharged from hospital. She was not examined again till January, 1946, when she was admitted to hospital with bronchopneumonia and cyanosis. Her history then was that she was a "failed cœliac"—that is, despite a good appetite and the usual treatment with diet and with liver and vitamin *B* injections she had failed to thrive. There was a history of cough and wheezing going back for two years. On her admission to hospital she was distressed and cyanosed; the abdomen was protuberant, though the liver was not palpable; clubbing of the fingers was present and the muscle tone was poor. Her condition improved with sulphamerazine and oxygen treatment and she remained in hospital for six weeks, when, though far from well, she was discharged home.

A number of investigations on this child were carried out at different times. In 1944 the fæcal fat was found to represent 97% of the dried fæces, and of this 76% was split. In 1946 the fæcal fat represented 42·8% of the dried fæces, and of this 84% was split. A duodenal assay was carried out in February, 1946. The specimen before the administration of acid showed no tryptic or amylolytic activity. One millilitre of a specimen of duodenal juice after the administration of acid digested 5·0 millilitres of a 0·1% solution of casein (normal, 25 to 50 millilitres). The specimen showed no amylolytic activity, and all specimens

were alkaline except immediately after the administration of hydrochloric acid. An X-ray examination revealed infiltration of almost miliary dimensions scattered throughout both lungs. This feature was noted to have improved in two subsequent films.

Subsequent inquiry revealed that the patient had returned to her own doctor after her discharge from hospital, but died two months later.

CASE VI.—C.S., aged ten years, was admitted to the Children's Hospital in a moribund condition in September, 1946. She had suffered from measles and bronchopneumonia at the age of six years and ever since then she had had a chronic cough; she had lately been under treatment for bronchiectasis. The last-mentioned apparently was a progressive condition, and numerous exacerbations had occurred, of which the latest and most severe had begun on the previous day. On her admission to hospital she was deeply cyanosed and gurgling and gasping for breath. Whilst being examined she gave a convulsive movement and gasp and died.

Post-mortem examination revealed bronchiectasis of cylindrical and saccular type, with bronchogenic abscesses and purulent exudate, bronchopneumonia, emphysema and mediastinal adenitis. In the liver multilobular portal cirrhosis was present; the organ was enlarged and traversed with deep furrows due to coarse cirrhosis, with smooth areas of apparent regeneration between. Microscopic examination revealed wide perilobular bands of fibrous tissue, with innumerable round cells and fibroblasts of more recent date (Dr. Reginald Webster). The pancreas was small and fleshy; microscopic examination revealed extreme fibrosis, atrophy of glandular tissue, cystic dilatations with structureless content, and round-cell infiltration. The spleen and heart were enlarged.

CASE VII.—L.O'H., aged eight and a half months, was admitted to the Children's Hospital in August, 1946. She was an undernourished child, weighing ten pounds twelve ounces on her admission to hospital, who had always been difficult to feed. Intermittent diarrhœa had commenced at the age of eight months and she had eczema. She had no respiratory symptoms. She presented with a history of diarrhœa and vomiting of two weeks' duration.

On her admission to hospital the patient was an undernourished, miserable, eczematous baby, with a palpable liver and an umbilical hernia. She was treated for eczema and her "failure to thrive" was investigated. The stools were noted to be offensive, and on analysis the fat content was determined as 42% of dried fæces, of which split fat represented 48%. X-ray examination of the chest revealed bronchopneumonic consolidation in the mediastinal aspect of the right lung, and analysis of the duodenal contents six weeks after her admission to hospital gave the following results: volume before the administration of hydrochloric acid, 5·5 millilitres (no tryptic activity); volume after the administration of hydrochloric acid, 8·0 millilitres (no tryptic activity). Other investigations were undertaken. The hæmoglobin value was 87%, the red blood cells numbered 3,990,000 per cubic millimetre, the blood group was O(IV) and the blood was Rh-negative (the mother's was Rh-positive). No reaction was obtained to the Wassermann test.

The child was fed on a "Bengerized" cow's milk mixture, the milk being skimmed later. The weight (see Figure IV) remained stationary until October 12, when pancreatin treatment was commenced, and without any other change in treatment the weight began to rise. An attack of bronchopneumonia in September responded to penicillin.

On her discharge to the out-patient department in November the child's condition was satisfactory, and she has continued to put on weight, having gained six pounds twelve ounces in the six months since she left hospital. She was readmitted recently (May, 1947) with anæmia (hæmoglobin value 63%, red cells 3,000,000 per cubic millimetre) and neutropenia (polymorphonuclear cells 11% of the 5000 white cells per cubic millimetre). She weighs eighteen pounds, her abdomen is still distended, her liver is palpable about two fingers' breadth below the costal margin, her spleen is just palpable, and she passes one or two bulky, offensive stools per day. She is to undergo a trial of folic acid treatment.

CASE VIII.—B.D., aged nine years, was presented by Dr. A. P. Derham at a meeting of the Melbourne Pædiatric Society in August, 1946. As she has since died, these notes complete the case report. She was admitted to hospital in May, 1946; she had been suffering from lassitude, loss of weight and cough with much sputum since an attack of bronchitis in December, 1945. Excessive sweating, especially of the hands, had also been noticed. She had had an abnormal bowel history since the age of two years—namely, periodic attacks of diarrhœa characterized by pale yellow semi-formed stools passed four or five times per day. During these attacks she had been listless, flushed and feverish, and had sweated excessively. From this time onward she had been noticed to have a protuberant abdomen. She had been in contact with a woman who was probably suffering from an "open" tuberculous lesion. The family history was unimportant.

On her admission to hospital the child was pale, wasted and bright-eyed, and she looked very ill. Her abdomen was protuberant and the liver was palpable three fingers' breadth below the costal margin and nodular. There were early signs of clubbing of the fingers, and she showed signs of patchy consolidation and exudation in both lungs. She was

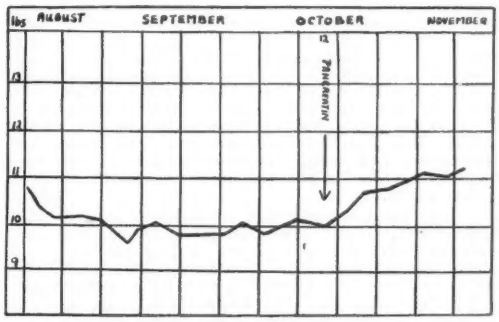

FIGURE IV.

Case VII: weight chart, showing response to pancreatin therapy.

originally thought to have generalized tuberculosis; but all tests for confirmation of such a diagnosis were attended by negative results. Her bronchopneumonia was treated with sulphamerazine and penicillin, with some improvement, and extensive investigations were made. The fæcal fat represented 43% of the dried fæces, 67·6% being split. The Wassermann and Casoni tests produced no reaction. Examination of a biopsy specimen of an inguinal lymph gland revealed no abnormality. Serial X-ray films revealed numerous patchy areas of consolidation and infiltration, which waxed and waned, and which were observed now at the bases, now at the apices of the lungs. Repeated blood examinations revealed only mild secondary anæmia with varying leucocytosis. The prothrombin index on August 6 was 13%, on August 14 (after vitamin *K* therapy) 56%, and on August 20, 100%. Microscopic examination of the urine revealed no abnormality. The urinary diastase was five units per millilitre of urine; the twenty-four hour output was 2,675 units. (One unit is the amount of diastase which will digest one millilitre of a 0·1% solution of starch in thirty minutes at 37° C. to such a degree that no colour is obtained on the addition of iodine.)

In July the enlargement of the liver increased, free fluid was noted in the abdomen, and large dilated superficial vessels were observed in the diaphragmatic area. The spleen was easily palpable. As sarcoidosis had been considered in the diagnosis, she was submitted to a course of deep X-ray therapy. Reduction of the ascites followed this. She continued to have relapses of her pulmonary condition, which responded less and less to the parenteral administration of penicillin and sulphonamide therapy. She gradually went downhill, becoming more and more distressed and cyanosed. Posturing and penicillin inhalations were employed; but her condition became worse and she died on September 27, four and a half months after her admission to hospital.

At the post-mortem examination the body was seen to be that of an emaciated girl with grossly clubbed fingers. Emphysema was present in the lungs, with extensive cylindrical purulent bronchiectasis, bronchopneumonia and mediastinal adenitis. The liver was enlarged by 50%. An extensive degree of lobulation was present with multilobular portal cirrhosis. Microscopic examination of sections revealed the typical picture—broad bands of fibrous tissue with inflammatory cells, and fatty liver cells. The spleen and splenic vein were enlarged, probably owing to portal obstruction. No ascites was present. The pancreas was small and fleshy. The ducts could not be cannulized with probes. Microscopic examination of sections revealed gross fibrosis, atrophy of glandular tissue, dilatation of ducts and acini. Cystic spaces containing eosin-staining material were present. The islet tissue was normal; in places it was seen in masses of fat and fibrous tissue.

CASE IX.—L.P., aged seventeen months, was admitted to the Children's Hospital in October, 1946. Her sister had died the previous year at the hospital "of a similar condition" (bronchiectasis) at the age of nine months. Though a post-mortem examination had been performed on the sister, no inspection had been made of the pancreas, since this organ has come to be examined only very recently as fibrocystic disease has become familiar.

L.P. had suffered from a chronic dry cough since the age of fourteen months, when she had bronchopneumonia. She suffered from loss of weight and anorexia. A fortnight's treatment with a sulphonamide in the out-patient department had effected no improvement, and she was admitted to hospital with bronchopneumonia. Though the bowel functions were said to be normal, on the child's admission to hospital the stools were noticed by Dr. Charlotte Anderson to be large, pale and offensive, and the abdomen was large; a provisional diagnosis of fibrocystic disease of the pancreas was made promptly. The fæcal fat content was found to be 49·8% of dried fæces (split fat, 70·8%). There was no opportunity for confirming the diagnosis clinically, as the child died suddenly twelve days after her admission to hospital. Her caloric intake had been inadequate, and the weight had fallen rapidly from 19 pounds 12 ounces to 11 pounds 4 ounces. No pancreatin, chemotherapy or vitamins had been given.

A post-mortem examination revealed cylindrical purulent bronchiectasis, bronchopneumonia and emphysema, and mediastinal adenitis. A culture of pus yielded a growth of *Staphylococcus aureus*. The liver, gall-bladder and bile ducts were normal. The spleen was twice the normal size. The pancreas was half the normal size, hard and fleshy; microscopic examination revealed gross fibrosis, atrophy and dilatation of acini, with eosinophilic laminated content and scattered fatty tissue.

CASE X.—K.D., aged eight months, was admitted to the Children's Hospital in June, 1946. He had had pneumonia at the age of three days, and was said to have had whooping-cough from the age of two and a half months to six months, with a constant whoop; he had been very ill and still had a chronic cough. He had been coughing and vomiting for three days before his admission to hospital, when he was found to have bronchopneumonia, and he was slightly cyanosed. No abnormal bowel history was given, and it was not until after some weeks in hospital that the stools were noticed to be offensive, and steatorrhœa was discovered. His chest condition was slow to respond to sulphamerazine, and penicillin was given parenterally with good effect.

In August, 1946, the fæcal fat content was found to be 61·3% of the dried fæces, 93% being split fat. A duodenal assay was made in October, 1946. The volume of duodenal juice before the administration of hydrochloric acid was 7·0 millilitres; it had a trace of tryptic activity, but no amylolytic activity. After the administration of hydrochloric acid the volume of duodenal juice was 7·0 millilitres; it had no tryptic or amylolytic activity. An X-ray examination revealed bronchopneumonic changes at both lung bases medially.

The clinical course was protracted. The child continued to lose weight for six weeks. His chest condition relapsed at the end of August. He was given a "cœliac number 2" diet (1200 Calories) and vitamin *A* and *B* and liver injections. Shortly after the duodenal assay in October, he contracted an intercurrent salmonella infection of the bowel, and was very ill for a while, requiring intravenous saline therapy. After this episode he continued to lose weight on an inadequate "light baby diet" (about five hundred Calories per day). Pancreatin treatment was commenced in the last week of October. For the next three months the child continued to go downhill, and a poor prognosis was given, until in January it was realized that the caloric intake was quite inadequate; the amounts of both Calories and protein (white of egg) were increased, with a remarkably good effect on the weight chart. His weight had fallen from nearly 17 pounds to 13·5 pounds. When the diet was reviewed, the child's weight shot up to 19 pounds within two months. His general health also improved, and a recurrence of his pulmonary infection in February, 1947, cleared up in five days of sulphamerazine treatment. His bowel activity decreased from an average of three to five large stools in twenty-four hours at the commencement of his stay in hospital, to one or two medium-sized stools per day on his discharge from hospital. His condition since his discharge has so far remained satisfactory.

CASE XI.—M.B., aged two and a half years, was admitted to hospital in December, 1946, with severe bronchitis and bronchopneumonia, which had been treated by her doctor with sulphamerazine for four days without relief. He referred her for admission to hospital for penicillin treatment. She had had *otitis media* six months previously, and had a chronic cough. On her admission to hospital she was a pale, dyspnœic little girl, exhibiting poor nutrition and muscle tone, dry skin, mildly protuberant abdomen, clubbing of the fingers and signs of bronchopneumonia. On further questioning of the parents I elicited the information that the child had suffered from a cough since the age of six months, that it occurred usually in bouts associated with vomiting and the passage of large, offensive, putty-coloured stools. She was said to have colitis, and her diarrhœic symptoms had been relieved by a diet poor in fat, which her doctor had ordered. The abnormal stools were observed in the ward, and when the chest condition slowly settled down she was investigated for fibrocystic disease of the pancreas with the following positive results. The fæcal fat content was 47% of the dried fæces, 84% being split fat, whilst the child was receiving a normal diet. A duodenal assay was carried out. The volume of duodenal juice before the administration of hydrochloric acid was 2·0 millilitres; it had slight tryptic activity, 2·5 millilitres of a 0·1% casein solution being digested by 1·0 millilitre of duodenal contents in fifteen minutes at 37° C. (normal figure, 25 to 50 millilitres). After the administration of hydrochloric acid, the volume of duodenal contents was 4·0 millilitres; it had the same tryptic activity. This result was confirmed six weeks later. X-ray examination of the chest on January 8, 1947, revealed a typical fluffy circumcardiac halo, with generalized increase of lung and bronchial markings throughout both lungs, and enlarged hilar glands. Consolidation of bronchopneumonic type was present in the upper lobe of the right lung and the lower lobe of the left lung (January 20). A bronchogram showed the bronchial tree to be radiologically normal (January 21). There was no reaction to the Mantoux test.

With Dr. H. Boyd Graham's permission, the child's treatment was started on the following lines. Her weight on admission to hospital was 23 pounds, and the average expected weight at two and a half years was 31 pounds; the mean was thus 27 pounds. The caloric requirement at this weight was 1200 Calories. A 30% increment for fibrocystic disease meant an additional 400 Calories. Therefore the total daily caloric requirement was 1600 Calories. She was started on a 1000 Calorie diet ("cœliac number 2") with added casein—two teaspoons per feeding of boiled skimmed milk. At Dr. Graham's suggestion this was later "Bengerized", and the caloric intake was increased as her appetite improved and her weight increased. She was given "Panteric" (Parke, Davis and Company), one capsule three times a day, ten minutes before meals in enteric-coated capsules, vitamin *A*, 56,000 units (Nicholas) by injection twice a week, and ascorbic acid, 25 milligrammes twice a day by mouth. She was given penicillin for a recurrence of her chest condition after bronchography, and a second recurrence a fortnight later subsided in four days with sulphamerazine treatment only; this was regarded as an indication of good progress in treatment. She was discharged from hospital two and a half months after her admission, having gained two pounds in weight, and looking better. She has since remained in reasonable health.

CASE XII.—B.B. came to the Children's Hospital in 1946 from a foundling hospital, both her parents being in a mental home. She was born in March, 1944, and had been admitted to the hospital several times in 1946 on account of retarded development. At this time she was thought also to be congenitally mentally defective. In February she was admitted to hospital with an iron deficiency anæmia; at that time she was very undernourished, with poor muscle tone, constipation, flattening of the left side of the chest, some crepitations in the lungs, and a small epigastric hernia. No abnormality of the stools was recorded. Her anæmia corrected, she was discharged to the out-patient department, and returned in July with a further history of night sweats, chronic cough and loss of weight. On her admission to hospital she was described as "a thin, wasted little girl, with match stick legs, protuberant abdomen and productive cough, like a 'cœliac' ". She was found to have bronchopneumonia, and X-ray examination of the lungs revealed collapse of the basal lobe of the left lung, emphysema of the right lung, and an opaque area in the right upper zone. A number of investigations were carried out. The fæcal fat content in July, 1946, was 52% of the dried fæces, 88% being split fat. Duodenal assay was attempted. The volume of duodenal fluid before the administration of hydrochloric acid was 6·4 millilitres; 5·0 millilitres of a 0·1% solution of casein were digested by one millilitre of duodenal contents in fifteen minutes at 37° C. After the administration of hydrochloric acid the volume of duodenal fluid was 4·6 millilitres, and the fluid had no tryptic activity.

The bronchopneumonia resolved slowly in two weeks with sulphamerazine treatment, and a course of vitamin and liver injections was commenced in August; during this month she had another bout of bronchopneumonia. Her weight remained stationary on a "cœliac number 2" diet, and she was still very weak. In October pancreatin treatment was commenced, and in November she started to gain weight. Her appetite also improved, and her intelligence now seemed more normal. For the next three months she gained weight rapidly, and her diet was increased. She still had a moist cough, however, and in March, 1947, she was given a prophylactic course of sulphadiazine, 0·25 gramme twice a day. On her discharge to the out-patient department she was greatly improved, mentally alert and smiling, and standing in her playground, and she had gained ten pounds in weight in seven months. No abnormality has been noted about her stools, save that she has a tendency to constipation.

CASE XIII.—C.M., aged five and a half years, was admitted to the Children's Hospital in January, 1947. She had been regarded as a normal child until seven months previously, when she was stated to have suffered from whooping-cough. After this her cough persisted and became productive. She had suffered from right-sided pneumonia seven weeks prior to her admission to hospital; after this her cough had increased in severity and the sputum in amount. She had had recurrent pyelitis since infancy, and *otitis media* at the age of three. Her appetite was good, but she had an intolerance of fat in her food; it seemed to produce diarrhœa. She had suffered from night sweats for an unspecified period. Her family history seemed unimportant.

On her admission to hospital, the child was seen to be a miserable, thin little girl, wheezing and cyanotic, with a cough of whooping-cough type. She was pigeon-chested, displayed marked inspiratory rib retraction, and was found to have numerous râles scattered throughout both lungs. She had pronounced clubbing of the fingers and toes. She was treated for bronchopneumonia with sulphamerazine and penicillin, with a gradual improvement. The presence of achlorhydria was determined by gastric analysis. She was originally thought to be suffering from miliary tuberculosis, but the result of the Mantoux test did not support such a diagnosis, no tubercle bacilli were found in the sputum, and the appearances in a radiograph of the chest were regarded as more suggestive of widespread bronchopneumonia than of miliary tuberculosis. It was noticed in the ward that the stools were offensive and loose, and in February I suggested the possibility of fibrocystic disease of the pancreas. Investigations gave the following positive results. On February 6 the fæcal fat content was 87% of the dried fæces, 89% being split fat. On March 17 the volume of duodenal juice before the administration of hydrochloric acid was 3·0 millilitres; less than 2·5 millilitres of a 0·1% solution of casein were digested by one millilitre of duodenal contents at 37° C. in fifteen minutes. After the administration of hydrochloric acid the volume of fluid was 5·0 millilitres; tryptic activity was unaltered. Unfortunately the latter investigation had to be postponed because of recurrent chest infections and measles, which was contracted as a cross-infection in hospital. However, the child recovered from this, and in the second week of March she was said to be improving and gaining weight. But she still had a fever when the duodenal intubation was performed, and the next day it rose higher and she became very ill, requiring penicillin, sulphamerazine and oxygen. Despite these measures she went steadily downhill and died a week later.

In the case of this child there was an unfortunate delay of six weeks between the clinical diagnosis and its confirmation by duodenal assay. As a result no treatment directed toward her pancreatic deficiency and general nutrition had been planned. She had had injections of "Aneurin" and "Campolon", and extra vitamins had been given by mouth. Pancreatin treatment was commenced four days before her death. Her weight had risen from 25 pounds 10 ounces on her admission to hospital to over 28 pounds on March 9, but thereafter it fell rapidly to its initial value.

At the post-mortem examination the body was stated to be that of an emaciated girl. In the lungs were found lobular consolidation and pronounced mediastinal adenitis, cylindrical purulent bronchiectasis and diffuse bronchopneumonia. The liver appeared normal on macroscopic examination; on microscopic examination, extreme fatty change was found, with numerous focal collections of small round cells; no cirrhosis was present, though the appearances were strongly suggestive of a precirrhotic condition. The gall-bladder was atrophic and empty, and neighbouring adhesions and thickening of the wall were suggestive of chronic cholecystitis. The pancreas was atrophic; on macroscopic examination fibrous tissue was seen when it was cut. Microscopic examination of sections revealed extreme glandular atrophy with fibrosis, and mild dilatation of the ducts and acini.

CASE XIV.—G.T., aged three years and two months, came from the country to the hospital on March 18, 1947, when I obtained the following history from the parents. The father was healthy, but came of parents who had lost two children in early infancy, one of pneumonia. The mother was healthy. She had had three children: a girl, who had died at six months of bronchopneumonia; an elder boy, who had been under treatment for years for a cœliac syndrome, and had previously been a patient in the hospital; and the present patient. The elder brother was in moderately good health; though he had had bronchitis, his parents were not particularly concerned about his progress. (It seems likely that this boy was suffering from mild fibrocystic disease and had remained in fairly good health in a country atmosphere free of the usual respiratory infections; the opportunity for investigating this child could not be secured.) However, the younger brother was obviously ill, and it was this fact that had brought the parents to the city. He had never been robust, had not put on weight as rapidly as other babies, and had been pigeon chested since early infancy. He had had a chronic cough for a year, which for the last two months had occurred in spasms, and had been described as whooping-cough. Previously his mother had noticed that he passed four or five large soft yellow stools per day and had a protuberant abdomen like his brother. She had treated him on the same lines as his brother, and he had been on a "cœliac" diet for eight months. As a result his stools had greatly decreased in frequency and were firmer; but over the last two months he had been suffering from wheezing, coughing, vomiting, loss of weight and poor appetite.

On examination the patient was seen to be a pale, "pot-bellied", undernourished boy with a pigeon chest, dyspnœa, inspiratory rib retraction, signs of bronchopneumonia and early clubbing and cyanosis of the fingers and toes. The liver was not palpable. He was admitted to hospital with a provisional diagnosis of fibrocystic disease of the pancreas, which was confirmed by the following investigations. The fæcal fat content was 36% of the dried fæces, 92% being split. The volume of duodenal contents before the administration of hydrochloric acid was 5·5 millilitres; less than 2·5 millilitres of a 0·1% solution of casein were digested by one millilitre of duodenal contents in fifteen minutes at 38° C. The volume of fluid after the administration of hydrochloric acid was 10·5 millilitres; the tryptic activity was proportional to 2·5 millilitres. Though these volumes of duodenal juice were greater than in previous cases, they were still less than the stated normals, and tryptic activity was depressed. This assay therefore confirmed the diagnosis. X-ray examination of the chest revealed a typical circumcardiac halo with diffuse mottling throughout both lung fields. The child was treated with penicillin given parenterally, a fat-free diet, and bi-weekly injections of vitamin *A* (50,000 units). His chest condition improved slowly over two weeks. On April 12 treatment was commenced with liver (one millilitre) and "Vibex" (25 milligrammes) on alternate days, ascorbic acid (25 milligrammes per day), and a diet rich in protein with decreased fat content. On April 19 he was given pancreatin, and in May he seemed reasonably well, having increased in weight from 26 to 28 pounds.

Note on Ætiology.

Various theories have been advanced as to the ætiology of the pancreatic lesion, of which that of Wolbach and Farber seems the most favoured. These authors attribute the disorder to inspissation of glandular secretion, with resultant dilatation, atrophy and fibrosis of glandular structures all over the body.

The liver disorder (fatty change followed by cirrhosis) has been attributed to the same process, but, as has previously been pointed out in this paper, secondary deficiency of lipotropic factors (choline) is probably the true explanation, as in alcoholic cirrhosis.

The cause of the lung disorder (bronchitis and bronchiectasis) has not been satisfactorily described. There would appear to be at least three factors involved: (i) vitamin *A* deficiency, (ii) infection, and (iii) some unknown factor.

1. Vitamin *A* deficiency. Undoubtedly changes occur in the bronchial epithelium as the result of vitamin *A* deficiency. It is equally certain that this is not the cause of the bronchiectasis, as in true cœliac disease there is the same vitamin *A* deficiency without the lung changes of fibrocystic disease.

2. Infection. The same opportunities for infection exist in true cœliac disease as in fibrocystic disease of the

pancreas; hence again infection cannot be the essential defect. It is therefore necessary to formulate a third factor.

3. Unknown factor. The unknown factor may be either congenital or nutritional. If congenital, the defect in the bronchi may be part of the generalized disorder of glandular structures as outlined by Wolbach and Farber. With regard to nutrition, apart from the pancreatic lesion, the pathological differences between cœliac disease and fibrocystic disease (see Table III) are in the liver and lung disturbances of the latter. The chief metabolic difference is in protein metabolism, which is normal in cœliac disease but deranged in fibrocystic disease. This protein defect probably causes the liver disorder; may it not also cause the lung disorder? It may be bound up with lack of protein antibodies and lack of resistance to infection, and it is being held that when the nutritional defect in fibrocystic disease is remedied, the stage of bronchiectasis may be postponed or possibly averted. The answer to this can be found only in the future study of these children.

The following table (Table III), somewhat modified from Andersen and Hodges,[12] outlines the difference between fibrocystic disease of the pancreas and cœliac disease.

TABLE III.

Characteristic.	Fibrocystic Disease.	Cœliac Disease.
Age of onset	Birth to four months.	Ten months to five years.
Growth	Retarded.	Retarded or normal.
Appetite	Usually good.	Usually indifferent.
Abdomen	Large.	Large.
Stools	Large, foul.	Large, foul, greasy.
Stool fat content	High.	High.
Neutral fat	Variable.	Low.
Split fat	Variable.	High.
Duodenal enzymes	Deficient.	Normal.
Fat metabolism	Failure of digestion.	Failure of absorption.
Carbohydrate metabolism.	Impaired.	Impaired.
Protein metabolism	Impaired.	Normal.
Liver	Enlarged and fatty; in advanced cases, cirrhotic.	Normal.
Lungs	Chronic disease; bronchitis, bronchiectasis.	Normal.
Pancreas	Fibrocystic.	Normal.
Anæmia	Not severe.	Present.
Vitamin *A*	Deficient.	Deficient.
Vitamin *B* complex	Probably normal.	? Deficient.
Vitamin *C*	Normal.	Normal.
Vitamin *D*	Usually normal.	Occasionally deficient.
Primary deficiency	Pancreatic juice.	? Vitamin *B*, hæmatinic principle.
Secondary deficiency	Vitamin *A*, Calories, protein.	Vitamin *A*, Calories.

Summary.

Fourteen proven cases of fibrocystic disease of the pancreas are described. Six other cases at the Children's Hospital have also been clinically recognized, but have not been included in this series, as diagnostic data are incomplete. This makes a total of 20 probable cases recognized within two years. Of the 14 patients, nine have died and five are still living, their survival being perhaps due to the good fortune of early diagnosis and satisfactory treatment.

The ætiology, pathology, clinical features and biochemical mechanisms are briefly discussed. The primary deficiency is in pancreatic external secretion; secondary deficiencies arising from this are: (i) Calories, (ii) protein and protein derivatives, (iii) vitamin *A*. It is suggested that not only does the essential metabolic difference between cœliac disease and fibrocystic disease lie in protein metabolism, but that protein metabolism holds the key to the liver disorder and possibly to the pulmonary disorder.

In the planning of treatment the above-mentioned four deficiencies must be made good and a *régime* of management is suggested on the following lines:

1. Diet. Caloric intake must be carefully watched and a high caloric, protein-rich and restricted fat diet planned. Added casein and egg are recommended as sources of protein.

2. Pancreatin. Evidence is produced on theoretical, experimental and clinical grounds to justify the use of pancreatin. Much work remains to be done in future studies for its value to be fully assessed. Predigestion of milk feedings is recommended.

3. Vitamin *A*. Vitamin *A* may be supplied by injection. When the disease is controlled, oral administration may prove adequate in the future. Other vitamins are given by mouth.

4. Chemotherapy. Penicillin and sulphonamide therapy is used for the recurrent pulmonary infections; every effort should be made to protect the child from these.

Acknowledgements.

My thanks are due to the Medical Superintendent, Dr. C. E. Sawrey, and the honorary staff of the Children's Hospital, Melbourne, for permission to record these cases; to Dr. H. Boyd Graham, for his encouragement; to Dr. Reginald Webster, hospital pathologist, for his valuable criticisms and help; and to Mr. Anderson and his photographic department for the reproductions.

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MESONEPHROMA OVARII.

By H. F. BETTINGER and HUBERT JACOBS,

Melbourne.

IF one peruses the chapter on ovarian tumours in a number of text-books of gynæcology or pathology, one will find that no two authors adopt the same classification. Some of the classifications cover two or three pages and are already from this point of view unworkable. It is not very difficult to understand why this should be so. Whenever attempts at classifying tumours are made, the best principle to apply is that of histogenesis. Now, in the case of the ovary, there is not even unanimity about the histogenesis of its normal components. It is therefore not astonishing that the application of this principle to the classification of tumours should lead to difficulties.

ILLUSTRATIONS TO THE ARTICLE BY DR. DAVID PITT.

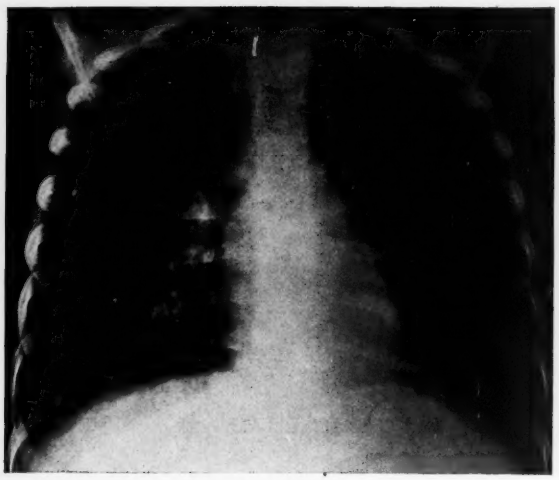

FIGURE III.
Case VIII: X-ray film of chest.

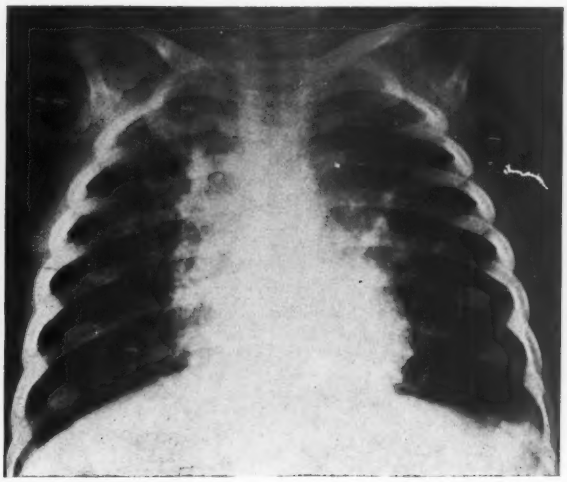

FIGURE V.
Case XI: X-ray film of chest on admission to hospital, showing fluffy circumcardiac halo.

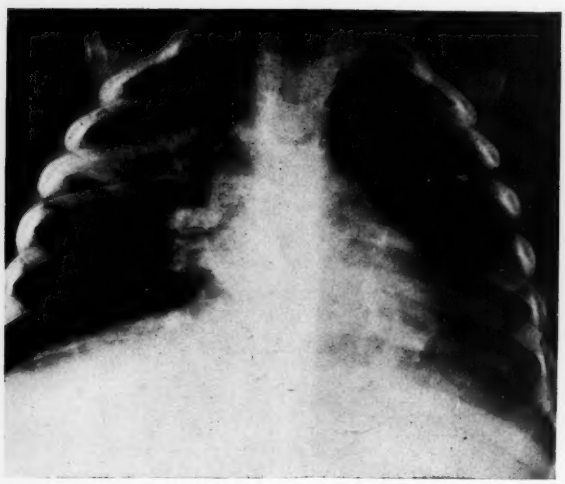

FIGURE VI.
Case XI: X-ray film of chest during a pneumonic episode; note opaque area in the right upper zone.

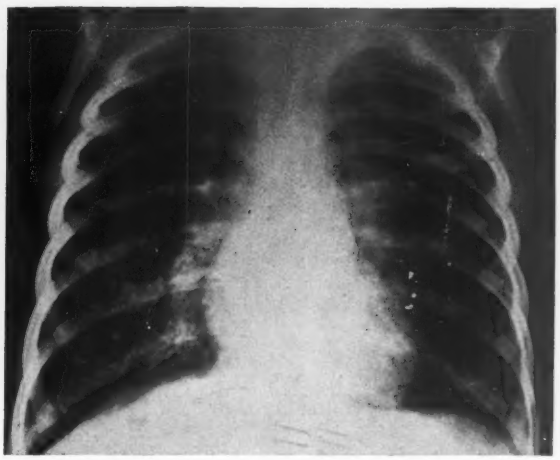

FIGURE VII.
Case XIV: X-ray film of chest showing fluffy circumcardiac halo.

ILLUSTRATIONS TO THE ARTICLE BY DR. H. F. BETTINGER AND DR. HUBERT JACOBS.

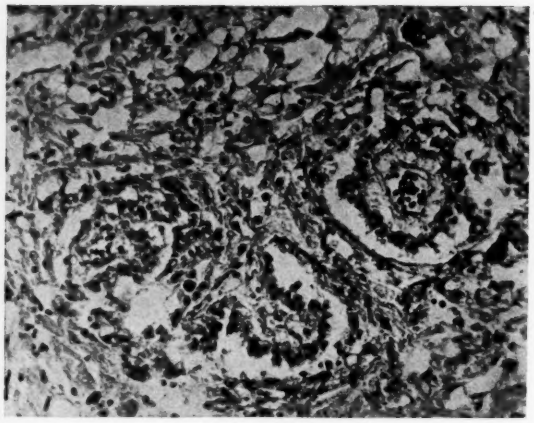

FIGURE I.
Three well-developed structural units resembling a mesonephric glomerulus.

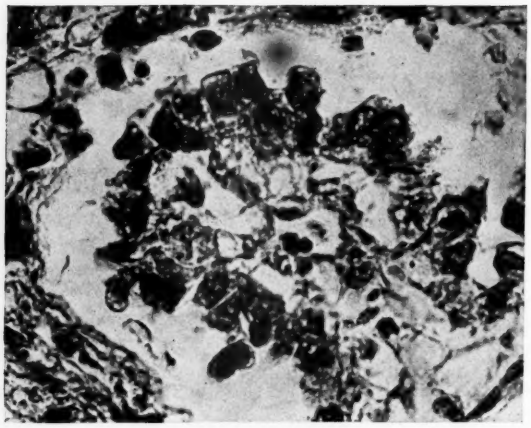

FIGURE II.
Cellular details of the glomerular units under high magnification. Note the "hobnail" type of epithelium.

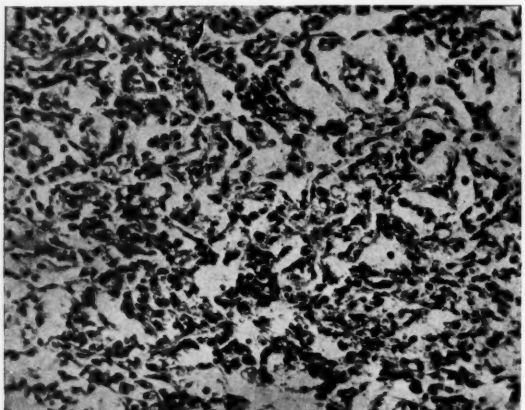

FIGURE III.
Tubular structures under medium magnification.

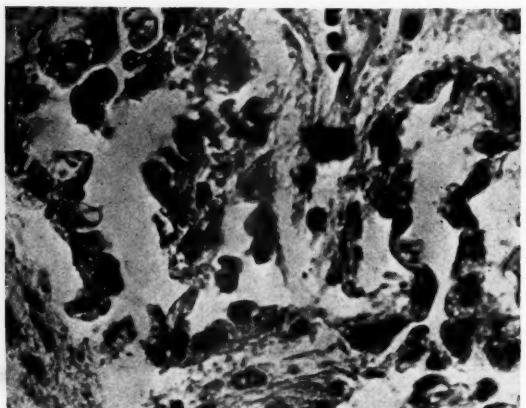

FIGURE IV.
Tubular structures under high magnification.

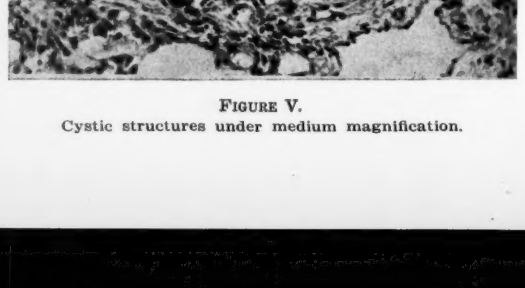

FIGURE V.
Cystic structures under medium magnification.

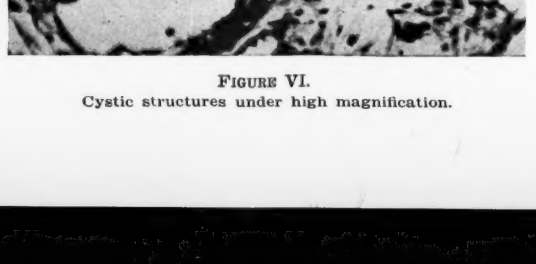

FIGURE VI.
Cystic structures under high magnification.

Some such attempts have had rather surprising results. For example, everyone would expect to find the two common tumours of the ovary, the pseudomucinous and the serous cystadenoma, close to each other in any classification. However, from a purely histogenetic point of view they have to be placed under quite different headings, about at the opposite ends of the classifications. It is unfortunately certain that this is unsatisfactory from any practical point of view. The ideal classification still remains to be found.

Much greater progress, as in the field of general classification, has been made in the endeavour to establish well-defined groups, which can be readily distinguished from each other. Most of this work was done by Robert Meyer about fifteen years ago, and it is remarkable how little was left to be added after his exhaustive studies.

In 1932 Löffler and Priesel published the first account of the theca cell tumour; but it has since been realized that these tumours form a sub-group of the granulosa cell tumour rather than a group of their own. In 1939 Schiller extended Robert Meyer's work, which had analysed in detail the solid ovarian tumours, to a closer scrutiny of the cystic neoplasms, and he suggested that one should segregate from the large group of benign and malignant papillary cystadenomata those tumours in which the fundamental unit of structure was not a papilla, but a formation that closely resembled the glomerulus of the mesonephros, and which should therefore be grouped together as "mesonephromata".

As only a limited number of publications has since dealt with Schiller's suggestion, and as no such case has been so far recorded in this country, it seems justifiable to make a recent observation the basis for a discussion of this new tumour group.

Report of a Case.

The patient, a married woman, aged twenty-seven years, first attended the out-patient department complaining of a heavy feeling in the lower part of the abdomen. A firm tumour at the back of the uterus reaching half-way up to the umbilicus was found and admission to hospital was advised. On her admission to hospital she gave the following history. Since the birth of her only child five and a half years previously she had had frequent backaches and a heavy sensation in the lower part of the abdomen during menstruation. During the last two months this sensation of weight in the lower part of the abdomen had increased, and some swelling of the abdomen had occurred. Severe lower abdominal pain had been present, worse during menstruation and at night. Menstruation, which had previously been regular, had occurred twice a month during the last few months. The patient had lost some weight and had some frequency of micturition and scalding.

On physical examination of the patient, a large oval mass was found in the abdomen extending from the pelvis to the level of the umbilicus. It was of firm consistence and did not move with respiration. On vaginal examination the cervix was found to be normal; the body of the uterus could not be separated from the pelvic tumour. There were no abnormal findings in any of the other organs.

At operation on July 11, 1945, the tumour was found to arise from the right ovary; it was generally free from adhesions except at one point, where it was lightly attached to the lower part of the pelvic colon. After these adhesions had been severed the tumour was removed. It was of a peculiar doughy or putty-like consistence. The cut surface was of a pinky-grey colour and had a honeycomb appearance. The left ovary was the site of a cystic tumour four centimetres in diameter. It had a smooth surface and a general appearance suggestive of an ovarian cystic teratoma; it was also removed.

Except for a transient rise of temperature the convalescence was uneventful, and the patient was discharged from hospital on July 31. On September 14 the patient was well, and no abnormality was detected in the abdomen or pelvis.

On November 27 the patient was readmitted to hospital complaining of colicky lower abdominal pain of sudden onset, accompanied by vomiting. On examination of the patient, an irregular tumour mass was found in the abdomen situated below the umbilicus and mainly on the right side. On December 7 another laparotomy was performed, and it was found that the intestine was studded with hard nodules of varying sizes. A large tumour was incorporated in the wall of the upper part of the sigmoid colon. The liver seemed normal.

During January, 1946, a course of deep X-ray therapy was given, pain was relieved, and some slight shrinkage of the abdominal swelling occurred; but by this time a new tumour mass had become palpable just below the spleen in the costo-abdominal angle.

On March 11 the patient was again admitted to hospital, and was now in very poor general condition. The abdomen was much distended by two large tumour masses, one being in the position of the original secondary mass, but larger, and the other occupying the left hypochondrium and left lumbar areas. On April 11 the death of the patient occurred.

Post-Mortem Examination.

At the post-mortem examination carried out by Dr. A. Tait Smith, examination of the heart and the great vessels showed no significant findings. In the lower lobes of both lungs some hypostatic pneumonia was present. No abnormality was detected in the œsophagus, stomach, duodenum or pancreas.

The peritoneal cavity contained several pints of straw-coloured fluid. Some loose fibrin was scattered about, especially in the pelvis. A large number of tumour deposits were present in omentum, in the parietal and visceral peritoneum.

The tumour deposits were of all sizes, varying from a few millimetres in diameter to one large tumour mass measuring fifteen centimetres in its long axis and ten centimetres in its smaller axis. This was situated in the left side of the abdomen beneath the left costal margin and was firmly attached to, though not infiltrating, the bowel.

The jejunum and ileum were densely adherent to numerous tumour masses scattered throughout the abdomen, and there were dense fibrous adhesions between the loops of the small intestine. Numerous large tumour deposits were firmly attached to the colon. The lumen of the bowel, however, was patent throughout, and at no place did the tumour actually appear to have infiltrated the bowel wall.

The liver was somewhat, though not greatly, enlarged. It weighed 1750 grammes. Multiple large metastases were present throughout the liver substance. These had the appearance of the other tumour deposits. The gall-bladder and bile ducts were normal. The spleen was small, weighing 112 grammes. It was normal in contour and consistence.

On the right side the ureter and kidney pelvis were much dilated owing to some constriction of the ureter, as it crossed the brim of the pelvis, by fibrous tissue. On the left side the kidney and ureter were normal. The bladder was normal.

The pelvic cavity was almost obliterated by numerous tumour deposits. The tumour tissue was soft and encephaloid in appearance, and on the cut surface were detected areas of necrosis, hæmorrhage and cystic degeneration.

The bodies of the vertebræ, the flat bones of the pelvis and the upper ends of the femora were examined as well as the ribs and sternum. There were no tumour metastases.

Histological Findings.—The microscopic structures of the tumour removed at operation and that of the metastases found at autopsy were so similar that there is no point in giving separate descriptions of the observations made on the different occasions. In all tumours there were large areas of necrosis, hæmorrhage and cystic degeneration. However, in practically all sections a fair number of peculiar structural units were found. They occurred sometimes individually and sometimes in small groups (Figure I); on other occasions they seemed to lose themselves within less differentiated tissue. Examined under high magnification, they consisted of a small cystic space which was lined by a single layer of flat cells with large nuclei which often protruded into the lumen. From the wall of the small cavity arose a single capillary loop which was covered by the same type of epithelium. It often had still more prominent nuclei (Figure II). The resemblance of these units to primitive glomeruli was striking. Other parts of the tumour consisted of ill-differentiated tubular structures (Figures III and IV); in still other parts, accumulations of cystic structures which varied considerably in size prevailed (Figures V and VI). They were often lined by the same endothelium-like epithelium as the glomerular structures. Sometimes the epithelium became cuboidal or even low columnar in type.

Comment.

All these findings correspond very well indeed to the descriptions given first by Schiller and later by other

authors of a "mesonephroma", and leave no doubt that the case just described belongs in this category.

In view of the reports by various authors that other tissue elements have been found in such tumours, a special search was made but no gonadal tissue or any tissues that might have suggested a teratomatous nature of the growth were found. In contrast, the tumour in the other ovary, which was also removed at the first operation (as mentioned above), was a cystic teratoma of the dermoid cyst type; but this contained no tissue elements even faintly resembling those of the main tumour.

General Characteristics of Ovarian "Mesonephroma".

Clinical Symptomatology.

The local symptoms and signs of the "mesonephroma" do not differ from those of any other ovarian cystic neoplasm. Even the rapid rate of growth which is often

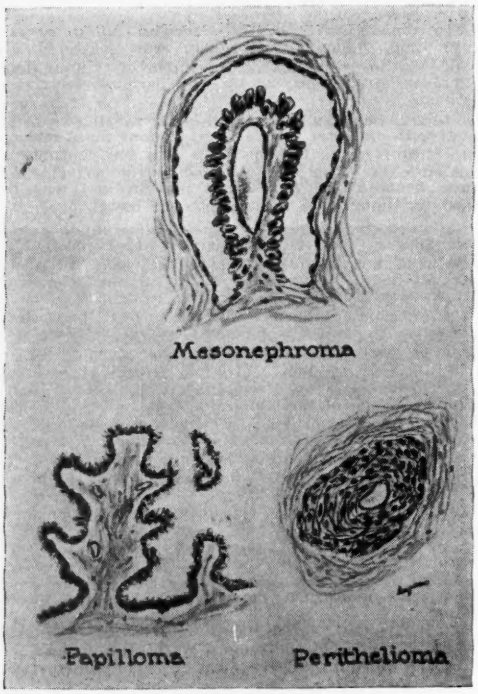

FIGURE VII.

Schiller's drawing to illustrate the differences in the structural units of a mesonephroma and a papillary cystadenoma.

observed does not distinguish it from other malignant ovarian tumours. The "mesonephroma" has no endocrine secretion and therefore does not cause any general symptoms or signs that might lead to a specific diagnosis.

Incidence.

The frequency with which such tumours occur cannot yet be judged adequately. It is noteworthy that some observers have been able to collect ten or more cases within a very short time, while other equally competent workers have found in their material only one or two cases which, in their opinion, justified an inclusion in this group.

The tumour can apparently occur at any age. The youngest patient on record was a girl, aged eight months, while on the other hand a similar tumour was found in a women aged sixty-nine years. However, by far the majority of tumours have been found in women aged over fifty years, and their occurrence in women in their twenties, like our patient, is rare. There is a peculiar preponderance of tumours of the right ovary. Whether this is a significant feature or a result of chance on account of the small number of tumours that have been observed so far, remains to be seen.

Macroscopic Appearance.

With regard to the macroscopic appearance, there are again no decisive features characterizing this tumour. It shares most of its macroscopic structure with other malignant cystic tumours of the ovary. However, the rather peculiar honeycomb appearance and doughy consistence of the tumour observed by us have been commented upon by other authors as well, although they may be explained by secondary degenerative changes rather than by the specific structure of the tumour.

Microscopic Findings.

Microscopically there are three structural elements which characterize this tumour. First and most important of all is a glomerulus-like formation. Figure VII, from one of Schiller's publications, emphasizes its difference from a papilla, the fundamental unit of structure in the ordinary papillary cystadenoma. The papilla has a connective tissue core which may vary in thickness, but is never missing; it has branches, is lined by a cuboidal or columnar epithelium and lies free in the general cavity of the cyst. On the other hand, the structural unit of the mesonephroma is a single capillary loop without connective tissue, covered by an endothelium-like epithelium and enclosed in a small space lined by the same epithelium, an equivalent to a Bowman's capsule. Although occasionally a cuboidal or low columnar type of epithelium may be found, the characteristic endothelium-like cells, with their large nuclei that bulge out of the extremely scanty protoplasm, are always conspicuous. A second distinguishing feature is provided by tubular structures resembling the tubules of the mesonephros and usually lined by the same types of epithelium. These tubules often become cystic, and accumulations of small and large cysts are frequently seen. Thirdly, solid structures may be found which are made up from similar epithelium, and which occur apparently where the rate of growth is greatest.

Malignancy.

The group of tumours as a whole should be regarded as malignant. It is true that in some cases the tumours have been described as benign and that malignancy seems to decrease with the degree of differentiation. However, in most of the cases in which the tumours were allegedly benign, the time of observation was too short to justify such a conclusion. Some response to deep X-ray therapy has been reported in a few cases; but radical surgery seems to be the method of choice in dealing with this tumour. Even then the prognosis is often bad.

Discussion.

Any discussion of the "mesonephroma" has to deal with two questions: first of all, whether a number of tumours that have been so far regarded as benign or malignant papillary cystadenomata have sufficient distinguishing characteristics to warrant their segregation into a new group, and secondly, if this is so, whether Schiller's suggestion that these tumours are of mesonephric origin can be supported by sufficiently good evidence, or whether there are other, perhaps better, suggestions.

The literature on the subject under discussion is still very small. In eight years there are to our knowledge nine publications from the United States of America, none from the British Empire, one each from Holland, Turkey, Denmark and Brazil. With regard to continental literature, there is only the fact that the Danish author who apparently had access to it during the war does not make any reference to a publication from a continental country. On the first of our questions all writers agree; the distinguishing features of these tumours are characteristic enough to allow for the establishment of a new entity—this in spite of the peculiar fact that some authors, like Schiller or Jones and Seegar Jones, have been able to observe a considerable number of these tumours within

a comparatively short time, while others, like ourselves, have seen only an odd one amongst a very large number of operation specimens.

On the second question there is unanimity only in so far as no author thinks that Schiller's contention has been proved beyond reasonable doubt. Most pathologists, including those who have not dealt with the condition in a separate publication, hold that, while the mesonephric origin of these tumours is still uncertain, there is no more convincing evidence in any other direction, and that it is therefore best, at least for the time being, to make use of the term "mesonephroma", especially when put between inverted commas. However, Kazancigil, Laqueur and Ladewig, who were incidentally the first to discuss the new tumour group after Schiller's original publication, were so impressed by the endothelium-like structure of the cells lining the specific structural elements that they arrived at the conclusion that these cells were actually endothelium, and they therefore proposed the name *papilloendothelioma ovarii* for the new group.

Another suggestion has been made by Stromme and Traut. They hold that in some of their specimens material of granulosa, theca or disgerminoma type has been present, that mucin secretion has occurred in parts of some tumours, and that these factors are not consistent with a mesonephronic origin of the tumours. They therefore think that one would commit oneself to less if one were to use the term "teratoid adeno-cystoma" for the time being.

If one considers Schiller's contention in detail, there are five points on which it is based. First of all there is the similarity of the structural unit of the tumour to a glomerulus, in its general configuration as well as in the cell detail. Its endothelium-like (hobnail) epithelium is said to resemble closely that of a glomerulus or a Bowman's capsule. Secondly, according to Schiller, not only is the similarity of the structural units to a glomerulus a likeness in the two-dimensional microscopic preparation, but reconstruction from serial sections of such units has resulted in three-dimensional structures of glomerulus-like shape. Thirdly, the fact that each such structural unit contains only one or at the best two or three capillary loops, is interpreted as establishing the relationship to the mesonephros of which this arrangement is typical. Fourthly, the examination of sections from young embryos clearly indicates the close relationship of the mesonephros to the developing gonad. And fifthly, the fact that similar tumours have been observed outside the ovary, but at sites consistent with a mesonephric derivation, is claimed as additional support.

If one scrutinizes the five points one after the other, the first is obviously the least contentious. Epithelium of the kind described is conspicuous in all tumours, and its similarity to endothelium is so great that, as has already been mentioned, Kazancigil, Laqueur and Ladewig designated such tumours as "endotheliomata".

Arguments have been raised against the second point, mainly by the contention that the glomerulus-like structures are not found consistently enough and, if present, may have too superficial a similarity to a mesonephric glomerulus. It is true that the frequency with which such structures occur in different tumours varies considerably. However, if they are present, their resemblance to a primitive glomerulus is striking—as a matter of fact, it is difficult to imagine any other structure with which they could be compared so easily.

Plastic reconstruction (point three) has been attempted by Kazancigil, Laqueur and Ladewig in one of their cases, but has proved unsuccessful, and has thus provided these authors with another argument for their suggestion that these tumours are endotheliomata. However, Schiller has pointed out that the photographs in their publication show a large number of typical units, some of which might have proved more suitable for reconstruction, especially if a higher magnification had been used. More such attempts at reconstruction might provide useful information.

Point four is conceded by everyone; but from point five the strongest arguments against Schiller's interpretation may still arise. Schiller himself described the case of a "mesonephroma" of the kidney of a man, aged fifty-two years. One of Kazancigil, Laqueur and Ladewig's tumours occurred in the testis, and so have a number of others. Even the finding of ovary-specific structures in some of the tumours, which has led Kazancigil, Laqueur and Ladewig, and Stromme and Traut to interpret them as of gonadal origin, does not constitute a decisive argument against a mesonephric origin. If one takes into account the close relationship between gonad and mesonephros in the early stages of development, one can understand not only the occurrence of a mesonephric tumour in the gonads, but also an occasional combination of elements of both of them in a tumour.

Therefore the evidence so far reviewed seems on the whole to favour Schiller's interpretation rather than any of the others. However, two observations have been recently recorded which may tip the scales in the other direction. Connally reports on a small tumour of the Fallopian tube that was accidentally found at the removal of an ovarian cyst. It had a peculiar adenomatous structure, and three competent pathologists, to whom sections were submitted, agreed that it could well be of mesonephric origin; but Novak, one of the consultants, adds significantly: "It must not be confused with the Mesonephroma in the Schiller sense." Furthermore, Teilum presents a report on four testicular tumours which have all the characteristics of Schiller's mesonephroma, and in addition, a report on an ovarian tumour, which in spite of—or perhaps rather because of—a different structure, represents to him a real "mesonephroma".

Schiller's tumours are interpreted by Teilum as an intermediate form between the disgerminoma and chorion-epithelioma of the testis or ovary. All three together belong, according to him, to a major group called "gonocytoma"; but it is not possible for us to discuss these rather astonishing suggestions, as we have at the moment no access to Teilum's earlier papers in which most of the evidence for his conclusions has apparently been presented.

Whatever their merits may be, the important point for this discussion is that, if it were true that other tumours could claim with greater justification the title "mesonephroma" than those originally described by Schiller, then another interpretation of the latter would have to be found. As things stand at present, the whole problem is still *sub judice*. It would be, in the words of Stromme and Traut, "a satisfaction if one could accept Schiller's theory of ætiology"—a theory which, as Jones and Seegar Jones put it, "is plausible and should be retained unless more conclusive evidence to the contrary is forthcoming".

This brings up one of the purposes of this paper—that is, to invite surgeons and pathologists to scrutinize most carefully all tumours that may have something to do with the group under review and to make available material from such cases for joint discussion. Only in this way will it be possible to accumulate sufficient evidence for a decision to be made in one or the other direction.

Summary.

1. A case of "mesonephroma" of the ovary is recorded; thus is added to the small number of reports, the first from the British Empire.

2. The clinical features, the macroscopic appearance and the microscopic structure of this tumour are described.

3. Based on a survey of the literature, a discussion of the probability of the mesonephric origin of these tumours is presented.

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Reviews.

PERSONALITY DISORDERS.

IN "Current Therapies of Personality Disorders" Dr. Bernard Glueck has edited the proceedings of the thirty-fourth annual meeting of the American Psychopathological Association, held in New York City in April, 1945.[1]

The book commences with Dr. Glueck's presidential address on the supposition that it is possible to "understand" a lot of things one already knows. He believes that psychiatry must play an increasing part in correcting the evils of the horrible and mad thing called "global war". It deals with "the quality, the worth, the meaning of human existence. It conceives its tasks in terms of total situations, and concerns itself not only with the personal make-up and reaction tendencies of the individual, but also with the milieu in which he has his being, the particular setting in which he is obliged to live out his destiny". The author pleads for balanced community living and points out the danger of racial revolutionary changes which are "none or all" types, neurotic and primitive.

Dr. D. M. Hamilton in an address stresses the use of the psychiatric hospital as a cultural pattern. He reminds us that every individual is "the product of interreacting constitutional and environmental forces". In the modern hospital the neurotically limited environment is replaced by one carefully planned to make the patient believe he can fit into happy membership of a broader and more robust community group. A case history is used to show the gradual change from anti-social to social behaviour.

Dr. Robert H. Felix pleads for the wider recognition of mental hospitals as public health agencies. The community must be taught to regard them not as institutions behind closed walls, but as playing a vital and interesting part in the field of social health.

The results of fifteen years of group therapy in a mental hospital are outlined by Dr. Louis Wender. Selected patients are invited to a group discussion. The aim of the psychiatrist is to consider the whole group and the goal is for the patient to obtain insight through indirect measures. The remark of one patient is apt. "I thought it just a lecture. I was surprised to see that the patients had as much voice as the doctor. It's funny, but I never thought I had so much in common with other people. It never seemed to me that any of my demands were selfish."

Elsie B. Kris discusses the use of electroshock therapy in the treatment of 500 patients. She is of the opinion that minor seizures are useless; patients with depression require ten treatments, whilst those with involutional psychosis need a minimum of twenty treatments. Schizophrenics require twenty to forty treatments for a full remission. On account of confusion patients should not return home until three weeks after clearance of the confusional state.

A technique for creating a conditioned reflex in alcoholics whereby vomiting replaces delight at the intake of strong liquor is described by Dr. Joseph Thimann. He records more than 50% of cures and points out that the treatment has the merit of comparative cheapness and a minimum period from work. His conditioning fluid contains emetine, pilocarpine, ephedrine and water. The technique includes the use of benzedrine before treatment and the administration of strychnine for those with a high threshold for vomiting.

[1] "Current Therapies of Personality Disorders", edited by Bernard Glueck, M.D.; 1946. London: William Heinemann (Medical Books), Limited. 9" × 6", pp. 302. Price: 17s. 6d.

The volume is worth perusal for the unusual article on bibliotherapy by Dr. T. V. Moore. He cuts at the roots of many social maladjustments by his reference to widespread lack of ideals and asks: "How can we find a practical way of supplanting unwholesome ideals and introducing in their place healthy attitudes of mind?" The author finds an answer in books. A library under the care of a competent librarian has its books for children classified. The child is encouraged to discuss the book which is chosen. It is not surprising that the ideal in the book is often adopted as a personal ideal.

In "Field and Objectives of Group Therapy" S. R. Slavson outlines its principles and sees community activity as releasing emotional tension. He draws attention to each individual's insatiable desire for personal status, his longing for prestige, self-respect, self-regard, as one of the strongest personality drives. If this be conceded there is indeed a strong case for group therapy.

For further measure Dr. Clara Thompson deals with "Transference as a Therapeutic Instrument" and stresses its irrationality. The techniques of child guidance are ably considered by Dr. Lauretta Bender. She concludes that the greatest need is for the evaluation of the child's problem and needs and the utilization of a technique to satisfy needs and solve the problem.

The book closes with sections on "An Evaluation of Hypnoanalysis", "Alcoholics Anonymous", "Psychiatric Rehabilitation Techniques", "Programme of the War Shipping Administration" and "Family Guidance".

The work, it will be seen, covers a "mixed bag" of modern psychiatric procedures, useful to both psychiatrist and the general medical practitioner.

CUSHNY'S PHARMACOLOGY AND THERAPEUTICS.

SINCE its first edition in 1899 under the distinguished authorship of Dr. Arthur R. Cushny, the classical work bearing his name has set a standard in English textbooks on pharmacology.

The present volume under the joint American authorship of Grollman and Slaughter maintains this standard both in the selection of material and in its presentation.[1] In consonance with modern practice, however, emphasis is placed on the scientific application of pharmacology to therapeutic ends rather than on the laboratory material subserving this application.

The difficult subject of classification of the increasing number of medicinal agents has received satisfactory treatment, with the projects of convenience in teaching and of facility in learning ever in view.

Following Cushny's practice, each section is terminated with a series of references selected either as records of original research or as compilations containing in themselves a good bibliography. Worthwhile advances in all fields of medicinal therapeutics, notably in those of chemotherapy, endocrinology and the vitamins, have been incorporated. The methods of presentation and of application of individual drugs are concisely detailed and their therapeutic virtues are assessed with critical restraint.

Monographs on the antibiotics, the curare group, the cholinergic series, histamine and the antihistamines—to mention but a few—make profitable reading, while individual drugs of present interest—pethidine, narcotine, the ergot alkaloids, "Bal" (dimercaprol)—among many others are well covered.

Though the authors quote in appendices to appropriate sections the relevant preparations of the British and United States Pharmacopœiæ, their uniform adoption in the text of the American names may be momentarily confusing to British readers. It is hard, for example, to recognize pethidine under the title of isonipecaine, or ergometrine as ergonovine, but these are minor difficulties readily dissipated by reference to a very comprehensive index.

A table of drugs classified according to their therapeutic uses makes a useful terminal section and brings together for ready reference drugs subserving a common purpose, but scattered for other reasons through different sections of the book.

Though the authors present it as a textbook for the student and practitioner of medicine, it will perhaps more readily find a place as a work of authoritative reference and as such can be recommended with confidence.

[1] "Pharmacology and Therapeutics", originally written by Arthur R. Cushny, M.A., M.D., LL.D., F.R.S.; thoroughly revised by Arthur Grollman, A.B., Ph.D., M.D., F.A.C.P., and Donald Slaughter, B.S., M.D.; Thirteenth Edition; 1947. London: J. and A. Churchill, Limited. 9" × 6", pp. 68, with illustrations. Price: 45s.

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SOCIAL PATHOLOGY.

MOST practitioners of medicine have become used to the idea that there is such a subject as social medicine and many of them realize that their practice is not complete unless it takes cognizance of this subject. This statement gives no idea of the full significance of the subject itself or of the way in which it should be regarded. The significance of social medicine is discussed in the Goodenough Report of 1944, which has been mentioned in these columns on many occasions. To the compilers of the Goodenough Report, social medicine included more than the restricted term disease prevention; it signified a particular conception of medicine—"a conception that regards the promotion of health as a primary duty of the doctor, that pays heed to man's social environment and heredity as they may affect health, and that recognizes that personal problems of health and sickness may have communal as well as individual aspects". They found growing support for the view that a general practitioner should become the health adviser of his patients and their families and should participate to an increasing extent in the conduct of the health services of the country. There can be no doubt that a good deal of change has taken place during the last few decades in the way in which medicine is presented to undergraduate students. We should imagine that there are few medical schools in which some stress is not laid on the preventive aspect of medicine, but it will be safe to conclude that there is considerable variation in the way in which the wider subject of social medicine is presented in relation to what is known as systematic medicine. The compilers of the Goodenough Report held that the clinical period of the student's training in social medicine should include: (*a*) proper emphasis throughout his clinical studies on the social and preventive aspects; (*b*) personal investigations of social and industrial conditions; (*c*) instruction on the communal and administrative sides of disease prevention, on the history of preventive medicine and on the evolution of the medical and social services. Four or five years ago one of England's foremost teachers of clinical medicine, John A. Ryle, Regius Professor of Physic in the University of Cambridge, was appointed to occupy the new chair of social medicine in the University of Oxford. This marked an important step in the progress of British medicine and gave fresh emphasis to its widening scope. As Ryle himself has declared, he took the necessary steps to enlarge his vision and to increase his opportunities for ætiological study. In an address[1] entitled: "Social Pathology and the New Era in Medicine", delivered at the centenary dinner of the New York Academy of Medicine in March, 1947, he spoke with the erudition that we have learned to expect from him and he presented arguments which should be brought before the largest possible audience.

Professor Ryle heads his address with a quotation from Sir John Simon's "English Sanitary Institutions", published in 1890:

> Into those other fields of endeavour as we gaze, we see numberless close analogies to our own work. We see there another Pathology than that which our clinics and dead-houses teach us, yet a Pathology almost parallel in its teachings.

The term social pathology is thus not new. This Ryle, of course, admits, but he adds that he can see no justification for the restricted interpretation that is sometimes given to it. He holds that social medicine and social pathology should, as their names suggest, be considered respectively as the medicine and pathology of families, groups, societies or larger populations. Just as human pathology is the related science of clinical medicine, so, he asserts, may social pathology be viewed as the related science of social medicine, whether it is pursued in the office of the statistician or with the aid of socio-medical surveys or experiments or of other more intimate and specific types of inquiry. We know that clinical medicine is a comprehensive term, for it implies not only clinical practice, but also the theory or discipline necessary for the advancement of knowledge and the improvement of practice. Ryle holds that the term social medicine is even more comprehensive, for it embraces on the one hand the whole of the activities of the public health administration and of the remedial and allied social services, and on the other, the special disciplines necessary for the advancement of knowledge relating to sickness and health in the community. The more fundamental of these disciplines he includes under the general titles of social pathology and hygiology. But he carries the analogy further. In human pathology many additions to knowledge came as the result of post-mortem examinations, and in like manner the first scientific development of social pathology was the social post-mortem examination. In social post-mortem examinations statistical methods and techniques are used to reveal death rates and their trends in the population, and these rates and trends can be correlated with social factors and social changes. The important point that Ryle makes about it is that this has an advantage over individual necropsy in that it succeeds in shedding light on the predisposing or ultimate causes of prevailing social diseases as distinct from the intimate and specific causes. The individual necropsy is silent about the circumstances which led to the development of the original morbid change. Ryle refers to the fact that in socio-medical surveys use is made of "natural" experiments in the same way as "natural" experiments

[1] *Bulletin of the New York Academy of Medicine*, June, 1947.

are used by the physician in studying the phenomena of disease in individuals. And as the experimental method is used in laboratory pathology, so may controlled social experiments be used with human populations. The example quoted is the well-known experiment reported by M'Gonigle and Kirby in 1936, when one half of a slum population was moved to a new housing estate and the other half remained as a control. It will be remembered that the health and mortality of the transferred population showed a considerable deterioration and that this was ascribed to higher rents and the cost of travel, which reduced the budget to such an extent that insufficient money remained for sufficient and balanced diets. Ryle makes an important point when he states that hygiology, or the study of health and its causes, is an associated interest of those who employ the survey methods of social pathology. The summarized conclusion is that "individual pathology deals with the quality and effects of diseases and, in practice, assists diagnosis and treatment, while social pathology deals with the quantity and causes of diseases and, in practice, assists prevention".

This short outline of Ryle's views will show that he has presented an unassailable statement. This being so, the question to be considered is the presentation of social pathology to the student, and so to the practitioner, in its proper perspective. This does not mean that every student must emerge as a specialist in both human pathology and social pathology. Ryle states that the case for social medicine as a subject worthy of support in a university setting has been accepted in Great Britain. He insists, however, that if success is to be achieved the methods and techniques of social pathology and hygiology must be critically developed and maintained, and also that close and friendly liaison must be established with the departments of public health, the medical and welfare departments of industry, the education authority, medical officers of school services and others. Successful development of social pathology in any community will depend to a large extent on a mental attitude, and as in many aspects of medicine, the most successful of its devotees will be those whose philosophy of life combines humanism with its other components. But it calls for more than this. The subject has what Ryle has called its own disciplines and its own techniques. The temptation is to advocate the establishment of special chairs in social medicine, and this would be helpful provided the step was always regarded as a means to an end and not as an end in itself. The whole subject in our Australian community is one for discussion by different groups of persons that cooperation may be assured before changes are introduced.

Current Comment.

ASPIRIN POISONING.

IN an editorial discussion on the surprisingly high incidence of suicidal and accidental deaths due to aspirin poisoning in England and Wales in 1938, *The Lancet* remarked[1] that it would need a brave legislator to make aspirin purchasable on prescription only. It was felt, however, that the possible (though not frequently experienced) dangers associated with the drug should be more generally appreciated. A similar editorial comment was made in the United States of America shortly afterwards,[2] and a further reference was made in 1944,[3] when attention was drawn to the decrease in blood prothrombin content and subsequent hæmorrhages sometimes caused by salicylates, including acetylsalicylic acid (aspirin). This can be prevented, but not cured, by vitamin *K*. Aspirin continues to be used extensively by the general community, perhaps more than any other single drug. It is undoubtedly very useful, though it is inevitably misused, and most people take it without demonstrable ill effect; but this is all the more reason why its possible dangers should be borne in mind and the latest views known on the management of aspirin poisoning.

Two reports of poisoning have been recently published. In one of these J. B. Gillespie and R. E. Dukes[3] describe how two small boys, both aged approximately three years, were found seated on the floor eating five-grain acetylsalicylic acid tablets from a bottle with apparent relish. An emetic was given with effect, but no other immediate treatment. One child, who, it was estimated, had ingested 15 or 20 tablets (75 to 100 grains), showed little untoward effects for some ten or twelve hours; then he developed restlessness and hyperpnœa. When admitted to hospital twenty-one hours after ingesting the aspirin he was very hyperpnœic, restless and irritable, with flushed face and moderately raised temperature. The urine contained diacetic acid and much acetone; the carbon dioxide combining power of the blood was only 28 volumes *per centum*. He was given 250 millilitres of lactated Ringer's solution subcutaneously and sodium bicarbonate and fluids orally, but grew worse, with increasing hyperpnœa, until his condition was critical. Then 300 millilitres of 1·5% solution of sodium bicarbonate in distilled water were given intravenously with almost immediate benefit; he recovered slowly but steadily. The next morning diacetic acid and acetone had disappeared from the urine and the carbon dioxide combining power of the blood was 44 volumes *per centum*. The following day he went home, apparently normal. The other child, who was believed to have eaten 75 grains of aspirin or possibly less, showed no ill effects for nearly twenty hours; then he vomited and became hyperpnœic, though at no stage did he appear seriously ill. The urine contained acetone and diacetic acid; the carbon dioxide combining power of the blood was only 14 volumes *per centum*. The latter had risen to only 27 volumes by the next morning and the amount of acetone and diacetic acid in the urine had not lessened, although lactated Ringer's solution and 5% dextrose solution had been given subcutaneously and sodium bicarbonate by mouth. Then 350 millilitres of 1·5% solution of sodium bicarbonate in distilled water were given intravenously. By the following day the urine was normal and the carbon dioxide combining power of the blood was 38 volumes *per centum*, and the child was sent home. The notable features in these two cases were the lag between ingestion of the drug and appearance of symptoms; the dissimilarity in the comparative degree of hyperpnœa and acidosis; and the response to intravenous administration of sodium bicarbonate solution. No light was thrown on the question of whether hyperpnœa or acidosis is the primary effect of salicylate poisoning.

The death of an adult from acetylsalicylic acid poisoning is reported by Sidney O. Krasnoff and Mitchell Bernstein.[4] The patient, a man, aged fifty-four years, had been taking increasing doses of aspirin for the relief of headache. One evening he consumed 75 to 100 grains in three hours. This relieved the headache and he slept, but next morning he was confused and incoherent, with deafness and tinnitus; dyspnœa, restlessness and finally coma with hyperpyrexia developed. Treatment included the use of "Thermo-rite" cooling apparatus, intravenous administration of dextrose solution and administration of oxygen, but the patient died. The principal pathological changes found *post mortem* were in the brain, kidneys and

[1] *The Lancet*, June 15, 1940.

[1] *The Journal of the American Medical Association*, October 5, 1940.
[2] *Ibidem*, March 18, 1944.
[3] *American Journal of Diseases of Children*, September, 1947.
[4] *The Journal of the American Medical Association*, November 15, 1947.

liver. This patient was in an advanced state of poisoning when admitted to hospital and apparently had little hope, but it is notable that, although dextrose was given, no intravenous administration of alkali is recorded. Various writers have stressed the importance of this latter measure. S. W. Williams and R. M. Panting, of Melbourne, reported[1] good results from the intravenous administration of sodium lactate solution, and the patients of Gillespie and Dukes, as mentioned above, responded well to intravenous injection of sodium bicarbonate solution. Although Gillespie and Dukes also gave their patients sodium bicarbonate by mouth, this is not generally favoured, on the grounds that it may increase absorption of the drug.

In an addendum to their report, Krasnoff and Bernstein record the death of a boy, aged fifteen months, who was given 30 grains of aspirin in a period of ten hours; he died in a state of acidosis and respiratory depression and the post-mortem findings were similar to those previously recorded. Details of treatment are not given.

There is no evidence in any of these reports that aspirin is harmful in normal therapeutic doses (apart from the small group of people with an idiosyncrasy), but the drug is freely available and may be taken in excessive amounts accidentally, for treatment or with intention of suicide. It is as well to appreciate just how dangerous excessive doses can be and to know the essentials of treatment.

DISSECTING ANEURYSM OF THE AORTA.

THE subject of dissecting aneurysm of the aorta with special reference to its clinical significance recurs from time to time in medical literature. In these pages attention has been drawn to it in the past, and following Shennan's classical report in 1934 there have been other excellent reviews, including that of W. H. Leitch a few years ago.[2] As evidence of the growing awareness of clinicians of the lessons of the morbid anatomist appears now an article by P. David, E. McPeak, E. Vivas-Salas and Paul White, reviewing a series of seventeen cases, eight of which were correctly diagnosed before death of the patients.[3] The patients were observed in the Massachusetts General Hospital, from which previous reports have been made on the same subject. Some years ago an analysis of 13 acute cases of dissection of aortic aneurysm in this hospital showed that only two patients were recognized as suffering from this condition, although the clinical picture was dramatic enough to warrant diagnosis. The present series covers the past ten years, and has been compared by the authors with the previous series, which covered the preceding forty years. As might be expected, no special relationship with syphilitic infection was disclosed. Other features followed the usual picture. The patients were predominantly male, in the proportion of two to one. In every instance a history of cardio-vascular disease was established. Survey of the clinical histories showed that the most reliable and constant symptoms on which to base a diagnosis were related to the type, onset and spread of pain. Pain was usually insistent and often uncontrollable, its onset was sudden, and it rapidly became severe. Dyspnœa was also common in association with the pain. The site of pain was either in the back or diffusely through the chest, in some cases being localized beneath the sternum. It was at times reflected to the arms, head and neck, legs or abdomen. This might be expected to be related to the spread of the trauma to the lining of the aorta, and in general autopsy confirmed this, though the site and degree of the arterial damage could not always be forecast from the march of symptoms. Arterial pressures in these patients were always raised above the norm for their age and habit, and although the onset of shock was associated with fall of the blood pressure in some instances, it was true as a generalization that some degree of hypertension persisted. This has been previously stressed as a sign of some value in diagnosis. Another interesting finding was the presence of heart murmurs heard over the basal region. In only a few patients had such murmurs been detected before the acute onset of symptoms. The authors feel that in patients who have been recognized as hypertensive and in whom a dissection of the aorta has occurred, basal heart murmurs are more common than in others.

Few patients survived the acute accident for long; in three a dissecting aneurysm had healed, allowing temporary recovery for periods of months, or in one instance over four years, but mostly they lived only less than two days. The site of the initial tear in the intima of the aorta was usually in the first few centimetres of the ascending part. This too was the most frequent position of the tear of the adventitious coat when this occurred, as it usually did. Whether actual rupture of the adventitia could be demonstrated or not at autopsy, the anatomical cause of death was almost always hæmorrhage into serous or tissue spaces. In fourteen out of the seventeen cases death was directly due to hæmorrhage into the pericardial sac causing cardiac tamponade. Summing up, we note that the dramatic and severe nature of the accident should arouse suspicion that an even more serious condition than a coronary occlusion has taken place, and in the absence of characteristic electrocardiographic changes the diagnosis of dissecting aneurysm should be considered. If the usually severe pain in the upper parts of the back or thorax extends in its location to other parts suggestive of reflection along the branches of the aorta, this diagnosis is probably well founded. The much more serious nature of this condition than the not uncommon and clinically similar coronary occlusion makes it important to recognize it on account of the justifiably bad prognosis.

REMOVAL OF A NAIL FROM THE DUODENUM.

CONSERVATIVE MEASURES are best in the management of swallowed foreign bodies. These are mostly eliminated without doing any harm and their surgical removal frequently presents hazards. Perhaps one of the most difficult problems is the foreign body which passes through the pylorus, but which because of its length cannot negotiate the fixed angular course of the duodenum. Surgical removal is regarded as rather a formidable proposition and the foreign body cannot be allowed to remain indefinitely *in situ* especially if it is sharp or rough. An ingenious method for the removal of metallic foreign bodies from the stomach was suggested by Murdock Equen several years ago.[1] This consists of the use of a small magnet, made from a special highly magnetizable alloy, "Alnico", attached to a Levine tube. The magnet is passed into the stomach under fluoroscopic observation, the stomach is dilated with air and the foreign body is picked up by the magnet and withdrawn. Recently Equen with Robert Gilliam and Merrill Lineback has reported the removal by similar means of a "sixpenny nail" from the duodenum of a boy, aged four and a half years.[2] The nail had been swallowed accidentally and after it had been in the duodenum for four days, according to the radiological evidence, surgical intervention was planned. However, a special magnet was made and attached to a waxed string, and the child was persuaded to swallow it. Between six and seven hours later, the child exclaimed suddenly, "Oh, mama, I felt something click!" and complained of dull pain in the right epigastrium. X-ray examination revealed the magnet in contact with the foreign body and, after administration of an anæsthetic to the boy, magnet and nail were withdrawn with little difficulty in less than two minutes. No ill-effects followed. This is understood to have been the first time that a foreign body held up in the duodenum has been removed without surgical operation.

[1] *British Medical Journal*, March 13, 1937.
[2] *Bulletin of School of Medicine*, University of Maryland, Volume XXXIII, 1942, page 704.
[3] *Annals of Internal Medicine*, September, 1947.

[1] *The Journal of the American Medical Association*, January 13, 1945.
[2] *Ibidem*, October 18, 1947.

Abstracts from Medical Literature.

OPHTHALMOLOGY.

Glaucoma Capsulare.

H. S. GRADLE AND H. S. SUGER (*American Journal of Ophthalmology*, January, 1947) discuss the ætiology and clinical features of *glaucoma capsulare*. Capsular exfoliation occurs in a small number of patients usually past the age of fifty-five years. It is manifested as an elevated scruffing on the anterior surface of the anterior part of the lens capsule, which represents a separation and opacification of the anterior layers of the anterior part of the lens capsule. The authors state that exfoliation occurs in five distinct zones of the capsule. One, and sometimes two, of the five can be seen only gonioscopically. When the exfoliations are still adherent to the capsule from which they originate, their appearance varies from thin, flocculent shreds to that of a semi-cystic membrane that resembles a very fine mesh honeycomb. Apart from their appearance on the lens capsule, shreds of exfoliations of the capsule are frequently seen adherent to the iris. They seem to be somewhat tenacious in character and frequently become adherent to whatever portion of intraocular tissue they touch. Not every patient with exfoliation of the anterior part of the lens capsule will develop hypertension. As the exfoliated material and pigment gradually block the trabecular spaces, the normal amount of drainage of the aqueous humour is lessened; but only when the total drainage area is reduced to a point where the production of aqueous is greater than the possible elimination does the intraocular pressure begin to rise. The process is slow, however, and probably requires years before the balance of intraocular pressure is disturbed. Distinction between simple glaucoma and *glaucoma capsulare* can be detected only by slit-lamp and gonioscopic study. The visual acuity and visual field changes that develop are comparable to those of simple glaucoma. However, in *glaucoma capsulare* there is a tendency for the pressure changes to occur with lower intraocular pressure. In most cases of *glaucoma capsulare* some form of surgical procedure is indicated. If cataract is present then the lens should be extracted. Any glaucoma operation without lens removal must be followed by constant use of miotics to prevent further exfoliation from the capsule. The actual removal of the lens has no great effect on the ocular hypertension.

Diagnostic Tests for Chronic Single Glaucoma.

SYLVAN BLOOMFIELD AND LEO KELLERMAN (*American Journal of Ophthalmology*, July, 1947) investigated and compared the efficacy of a series of tests for glaucoma. The authors consider that rises in tension must exceed six millimetres of mercury (Schiotz) to be considered abnormal. The dark-room test was performed by measuring the tension of the eye suspected of glaucoma before and after the patient had been seated in a completely dark room for one hour. The caffeine test was performed by having each patient drink two large cups of black coffee in quick succession. The tension of each eye was measured before the drink was taken and thereafter at fifteen-minute intervals for one hour. The effect of a mydriatic was studied by instillation into the eye of one drop of 1% solution of "Paredrine" three times at ten-minute intervals. The tension of each eye was measured before the first drop was instilled, and then at half-hour intervals for three hours thereafter. Diurnal variations were studied, tension being recorded every four hours. The lability test was performed by first measuring the tension of each eye. A blood pressure cuff was placed loosely about the patient's neck. The patient then placed the open hand in a basin of ice water up to the wrist. Simultaneously the blood pressure cuff was inflated to a pressure of 50 to 60 millimetres of mercury. At the end of exactly one minute the ocular tension was again recorded with the hand still in ice water and the cervical pressure undiminished. The authors concluded that the lability test was the most reliable of the diagnostic procedures studied. The water-drinking test proved almost as trustworthy as the lability test and the twenty-four hour study of ocular tension variations proved of decidedly less diagnostic value. The dark-room test proved to be of questionable diagnostic value. The response to the caffeine test and to the mydriasis produced by "Paredrine" indicated that no diagnostic significance could be attached to those procedures.

Research in Zurich.

M. J. ROPER-HALL (*The British Journal of Ophthalmology*, April, 1947) summarizes the work on the pathological changes in the aqueous humour and the blood aqueous barrier at Zurich. He states that the work carried on by Marc Amsler is concerned mainly with the albumin and cell content of the aqueous in disease of the anterior segment. A specimen of aqueous is obtained by puncturing the cornea, after taking certain precautions, with a special needle which is attached to a tuberculin syringe. The procedure is simple and can be performed in the out-patient department. The following investigations are carried out on the specimen of aqueous: determination is made of albumin content and of the number of cells per cubic millimetre, and incubation on broth is carried out; the remainder is centrifuged and the centrifuged matter is deposited on a cover glass and stained to ascertain the type of cell present. All this is done with one-fifth of a millilitre of fluid. Wassermann tests have been performed, and it was found that the result of the test on the aqueous was never positive if the result of the blood test was negative, and even with a positive result to the blood test, unless there was albumin present the result from the aqueous was negative. It has been found that normal aqueous contains less than one cell per cubic millimetre. In the presence of anterior uveitis and deep corneal ulcers the cell content was usually between 30 and 200 cells per cubic millimetre. In the presence of acute inflammations the albumin is increased in proportion to the number of cells, and in chronic inflammations and other diseases there is a dissociation between the albumin and the cells comparable to that observed in the pathological reactions of the cerebro-spinal fluid. The cells are derived from the blood and neighbouring tissues, and it has been shown that many of the cells are phagocytic. Cultures were rarely grown from the fluid. In a study of the blood-aqueous barrier fluorescein was injected intravenously and relative measurements of its concentration were taken at suitable time intervals during the next thirty minutes. The findings in ocular and general disease were correlated with the normal. In a study of the Tyndall effect it was shown that the Tyndall effect shows permeability of the damaged blood-aqueous barrier to proteins and large molecules, while fluorescein permeability shows the more minute changes in the permeability of the wall to smaller particles. Also, where the normal barrier will not allow a positive Tyndall effect, it will allow fluorescein to pass through. Thus the fluorescein will give an earlier and more sensitive impression.

Angioid Streaks.

BERTHA KLIEN (*American Journal of Ophthalmology*, August, 1947) was fortunate to obtain two eyes of the same individual which were characterized by the presence of angioid streaks. Both eyes were sectioned from above downward. The pathological changes in the posterior segments of both eyes were similar, being further advanced in the left eye. Stained with hæmatoxylin-eosin, the *lamina basalis* stood out staining deep blue. Towards the equator this deep stain ceased to be homogeneous, becoming spotty, and in the periphery appeared normal. There were numerous breaks in the membrane, especially towards the posterior polar regions. Some of these tears affected the outer elastic lamina only. In addition there were wide gaps in the *lamina basalis* over still well-preserved choriocapillaries. The presence of calcium deposits in the membrane was demonstrated by the Kossa reaction. With the elastic stain, orcein, staining was poor in areas corresponding to the presence of calcium. The Turnbull blue stain demonstrated iron in the lamina throughout the posterior polar region. The pigment epithelium was irregular over the larger tears. Through many breaks in the *lamina basalis* capillaries and fibroblasts had grown between it and the pigment epithelium, forming crest-like elevations. Under these hypertrophic lesions Bruch's membrane was unusually well preserved and the newly formed tissue preferred to grow upon the still preserved membrane as a base rather than to fill the gaps over the ruptures. The pigment epithelium over the crests was usually degenerated into flat, non-pigmented cells. The chorioid appeared normal under the unbroken membrane and under small ruptures; under more extensive lesions the capillary layer was missing and in many places fibroblastic granulomata had formed around displaced calcified fragments of Bruch's membrane. Many of the chorioidal and posterior ciliary arteries were normal, and in others there were occasional defects or hypertrophic areas of the internal elastic lamella and spotty hypertrophy of the media and adventitia. The retina appeared normal except over some hypertrophic lesions where first and second neurones were extensively damaged. The optic nerves were normal except for several hyaline bodies in the temporal half of the left nerve head. Klien concludes that

calcification, even if secondary to the elastic degeneration in the pathological process, is essential in the production of all except perhaps the earliest manifestations of the disease.

The Cytology of Conjunctival Exudates.

PHILLIPS THYGESON (*American Journal of Ophthalmology*, December, 1946) reports on a study of conjunctival scrapings, exudates and follicular expressions made over a period of ten years and comprising more than 2000 examinations. The most frequent cell reaction in acute and chronic conjunctivitis was a polymorphonuclear response; with the exception of *Neisseria catarrhalis* and diplobacillary infections, all bacterial infections of the conjunctiva induced this type of cell reaction. An eosinophile response, so well known in vernal catarrh, is not specific for that disease, being demonstrated in hay fever, in conjunctivitis, and in various drug and cosmetic allergies. Eosinophile cells were found in association with atropine conjunctivitis, but not with eserine conjunctivitis. A conjunctival basophilic reaction was seen in allergic inflammations, particularly vernal catarrh. Mononuclear cells and lymphocytes were the predominant cells associated with epidemic keratoconjunctivitis and acute follicular conjunctivitis. Epithelial changes consisting of various degrees of keratinization occur in early vitamin *A* deficiency, and mild keratinization combined with an increase in goblet cells and mucus was characteristic of *keratoconjunctivitis sicca*. There is a striking difference between the cytology of the expressed follicles in trachoma and those of the follicular conjunctivitis group; these differences are probably due to the fact that cell necrosis is a feature of trachoma.

OTO-RHINO-LARYNGOLOGY.

Ménière's Disease.

TERENCE CAWTHORNE (*Annals of Otology, Rhinology and Laryngology*, March, 1947) states that the term "Ménière's disease" is applicable to that group of conditions characterized by paroxysmal vertigo with nausea and vomiting, deafness and often tinnitus, in which no other neurological changes can be demonstrated. The author writes of experiences gained from over four hundred such cases. A variation in the endolymph pressure is considered as the most likely event accounting for the attacks, whether the cause is due to disturbed water metabolism, to salt retention, or to an allergic reaction. Very few instances of probable foci of sepsis were encountered. The influence of Eustachian tube insufficiency and of other conditions of the middle and even of the external ear is felt to have been over-stressed. Often there are prodromal symptoms which may persist throughout the attack. These take the form of a variation in the nature and degree of tinnitus, a feeling of fullness or numbness in or behind the affected ear, a feeling of pressure or bursting in the head and distortion of sound with discomforting jarring. The psychological distress of many of the more severely afflicted patients is stressed. Very occasionally a definite hemicrania was associated with the attacks. Spontaneous nystagmus was seen only during and for a short period after an attack. The caloric test has rarely failed to reveal a lack of balance between the two labyrinths, the commonest finding being a depression of function on the side of the deafness. This test indicates with reasonable certainty whether or not the disorder is limited to one labyrinth, an essential point if surgical treatment is contemplated. Both the cochlear and vestibular tests reveal some evidence of bilateral involvement in a proportion of the cases, and these findings influence the decision as to the best type of treatment to adopt. The author states that reassurance is essential in treatment. Conservative treatment is usually sufficient to control the attacks. Small doses of hyoscine sometimes help in modifying the attacks. Phenobarbitone may be of use to control the resultant nervous upset. The exclusion of salt from the diet, combined with a limitation of fluid intake, has resulted in a great measure of relief. Histamine sometimes gives considerable relief. Patients whose attacks are not controlled by conservative treatment, in whom only one vestibular labyrinth is affected and whose hearing on the same side is obviously impaired, are considered suitable cases for destruction of the end organ. This is usually effected by removing a piece of the membranous external semicircular canal or by tearing it across. The procedure has been employed in 116 cases without any untoward result.

Auditory Symptoms from Defective Dental Bite.

D. J. GOODFRIEND (*Archives of Otolaryngology*, July, 1947) states that of a group of 168 students examined 55% had dental malocclusions, and that of this group audiometric studies showed that the hearing was 13% less than in those with normal dental articulations. An investigation of submarine crews showed that malventilation of the middle ear was often associated with defects of the bite and could frequently be cured by dental treatment alone. From the temporo-mandibular joint, reflex action through the nerve pathways may cause reflex spasm with altered tension and disposition of the ossicular chain, causing impaired sound conduction. Arteries and veins supplying the ear also pass through the area of the mandibular joint and may be displaced or compressed. Disease, attrition, and loss of teeth or unscientific replacement of teeth are associated with alterations of the anatomical relations and functions of the temporo-mandibular joints. These may cause displacement and traumatic movements of the condyles and degeneration of the articular surfaces. These changes in turn by altering the relationship of the joint to the ear may cause irritation, resorption, perforation, degeneration and exostosis of the wall between the joint and the external auditory meatus, middle ear and Eustachian tube. In turn the atachments of certain of the ossicles, membranes and muscles of the middle ear may be altered. In the presence of normal dental articulation the mandibular condyle is separated from the fossa of the joint by the meniscus above, and from the auditory meatus by a fold of the parotid gland posteriorly. When the posturing support of the teeth is diminished the condyle is displaced superiorly and posteriorly with resultant deformity of the fossa and compression and displacement of the various nerves and vessels. The most dangerous form of bite to the ear is that associated with loss of the posterior teeth, so that the bite is too deeply closed and the mandibular condyle is displaced posteriorly. The author has found that by correction of the dental bite aural vertigo and certain types of neuralgia are often cured; chronic tinnitus is not cured, but it may be altered; progressive deafness of substantial degree and time cannot be cured and hearing cannot be improved, but the progress can be slowed; reduction of auditory acuity in its early stages can be cured. The importance of prevention is thus stressed. Often there may be no particular symptoms pointing to the teeth or mandibular joint and diagnosis must be made by study of the bite, comparative facial measurements and X-ray photographs of the temporo-mandibular joints.

X-Ray Therapy in Cancer of the Larynx.

MAURICE LENZ (*The Journal of the American Medical Association*, May 10, 1947) states that X-ray therapy depends on the administration of sufficient X rays to destroy the cancer while preserving the recovery powers of simultaneously irradiated uninvolved tissues. The resistance to X rays of cancer of the larynx and of the uninvolved laryngeal and pharyngeal mucosa is so similar that to destroy the cancer it is necessary to administer a dose which will also cause sloughing of the irradiated mucosa. The resulting denuded area promptly epithelializes provided the subjacent vascular and connective tissues are healthy. Microscopic evidence of retrogressive radiation changes in the vascular and connective tissues begins to appear about two or three months after such X-ray dosage. It is therefore preferable to terminate all X-ray therapy before this period. Tolerance of irradiation injury diminishes with increase in size of the irradiated area. Small cancers are therefore more easily treated than extensive ones, especially as an ample zone of uninvolved surrounding tissue should be irradiated. Other secondary ill effects may be œdema and chondronecrosis. At the Presbyterian Hospital, New York, 128 patients with laryngeal cancer were treated by irradiation, and of these 110 were followed up. Of the 110 patients 78 died, mostly with evidence of persisting cancer or metastases. In four there was radionecrosis. Thirty patients were considered to be cured, being free from clinical evidence of cancer for five to fourteen years. X-ray therapy succeeded in arresting the condition in eight of ten cases in which the tumour was confined to one cord or extended to the anterior commissure. Invasion of the arytenoid, especially if causing fixation, was found to be of grave significance, only four of nineteen such lesions showing arrest of growth over five years. The prognostic significance of microscopic grading of cancer of the larynx is questioned. It would appear that X-ray therapy is somewhat more successful in undifferentiated than in well differentiated epitheliomata. All of 26 epitheliomata arising in the pyriform sinus invaded the arytenoid, and in 17 there was lymph node involvement. All of the 26 patients died. X-ray therapy is not recommended for the subglottic tumours.

British Medical Association News.

ANNUAL MEETING.

THE annual meeting of the Victorian Branch of the British Medical Association and of the Medical Society of Victoria was held at the Medical Society Hall, Albert Street, East Melbourne, on December 3, 1947, Dr. A. E. Coates, O.B.E., the President, in the chair.

ELECTION OF OFFICE-BEARERS AND MEMBERS OF THE COUNCIL.

The Medical Secretary announced that the Council had elected the following office-bearers:

President: Dr. F. Kingsley Norris, C.B.E., D.S.O.
Vice-Presidents: Dr. Douglas J. Thomas and Dr. John S. Green.
Honorary Treasurer: Dr. J. A. Cahill.
Honorary Secretary: Dr. Roy F. Watson.
Honorary Librarian: Dr. Douglas J. Thomas.
Chairman of Council: Dr. H. C. Colville.

The Medical Secretary announced that the following had been elected members of the Council by the general body of members: Dr. Arthur Brown, Dr. Charles Byrne, Dr. A. E. Coates, O.B.E., Dr. John Dale, O.B.E., Dr. John Gowland, Dr. John S. Green, Dr. H. G. Furnell, C.B.E., D.S.O., Dr. Victor Hurley, C.B., C.M.G., Dr. H. M. James, Dr. L. W. Johnston, Professor P. MacCallum, M.C., Dr. F. Kingsley Norris, C.B.E., D.S.O., Dr. Robert Southby, Dr. D. J. Thomas.

The Medical Secretary announced that the following had been elected members of the Council by the subdivisions: Dr. L. Ball, Dr. M. H. Box, Dr. D. D. Browne, Dr. D. A. Carter, Dr. B. D. Fethers, Dr. P. Goodman, Dr. A. B. Hewitt, Dr. J. G. Johnson, Dr. A. B. McCutcheon, Dr. D. G. Mackellar, Dr. L. A. Neal, Dr. M. L. Powell, Dr. J. J. Searby, Dr. W. A. Sloss, Dr. G. Swinburne, Dr. R. F. Watson, Dr. G. R. Weigall, Dr. L. J. Westacott.

The Medical Secretary announced that the *ex-officio* members of the Council were: Dr. J. A. Cahill, Dr. H. C. Colville, Dr. F. L. Davies, Dr. J. Newman Morris, C.M.G., Dr. D. Roseby (trustees of the Medical Society of Victoria), Dr. J. P. Major, C.B.E. (Director, Australasian Medical Publishing Company, Limited).

The representative of the Victorian Medical Women's Society was Dr. Elizabeth McComas.

The coopted members of the Council were Dr. Kenneth Smith, C.M.G., and Dr. J. H. Lindell.

PRESIDENT'S ADDRESS.

Dr. A. E. Coates then read his retiring president's address (see page 89).

THE RETIRING MEMBERS OF COUNCIL.

A vote of thanks to the retiring members of the Council—Dr. Vernon Davies, Dr. G. Forsyth, Dr. C. H. C. Searby and Dr. F. E. McAree—was carried on the motion of Dr. J. Newman Morris, seconded by Dr. Victor Hurley and supported by Dr. J. P. Major.

THANKS TO THE RETIRING PRESIDENT.

Dr. J. Newman Morris said that he felt he was voicing the feeling of every member present by saying that there would be a hiatus if the meeting closed without a very warm vote of thanks to the retiring president for his service to the profession. The Branch was privileged in having had Dr. Coates as its president. He had been elected president in the early years of the war, but absence on duty had prevented him from carrying out the duties of the office, but a substitute was found for him in Dr. Boyd Graham. It was a stroke of genius on the part of the Council when it seized the opportunity to enable Dr. Coates to resume the office. The admiration in which Dr. Coates was held was not restricted to the profession, but was shared by the people of Victoria and beyond. He moved:

> That the Branch members present at this annual meeting express appreciation, admiration and thanks for the conspicuous service rendered to the profession by the retiring president, Mr. A. E. Coates.

Dr. A. P. Derham, in seconding the motion, referred to the courage, sacrifice, capacity and high sense of duty of Dr. Coates during the war. The profession was proud and privileged to have had as its president a man possessing the personal qualities, the mental and physical vigour and determination of the retiring president. His qualities of leadership were well known throughout the world, and the future would give them even fuller recognition. These qualities would be of tremendous value to the profession in the struggles that lay ahead, and he hoped that the services of the retiring president would be available to guide and assist the profession when they were needed.

The motion was carried by acclamation.

ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council which had been circulated among members was received and adopted on the motion of Dr. J. Newman Morris, seconded by Dr. J. P. Major. The report is as follows.

THE Council of the Branch and the Committee of the Society present the sixty-eighth annual report of the Branch and the ninety-second of the Society.

Election.

At the annual meeting held last December the following members of the Council and of the Committee were elected:

Dr. Arthur Brown, Dr. Charles Byrne, Dr. A. E. Coates, Dr. H. C. Colville, Dr. John Dale, Dr. J. H. Gowland, Dr. J. S. Green, Dr. Victor Hurley, Dr. L. W. Johnston, Professor P. MacCallum, Dr. F. Kingsley Norris, Dr. Kenneth Smith, Dr. R. Southby and Dr. Douglas Thomas.

The following were elected to represent the subdivisions:

Dr. L. H. Ball, Dr. M. H. Box, Dr. J. A. Cahill, Dr. D. A. Carter, Dr. G. V. Davies, Dr. B. D. Fethers, Dr. G. Forsyth, Dr. P. Goodman, Dr. A. B. Hewitt, Dr. F. E. McAree, Dr. D. G. MacKellar, Dr. L. A. Neal, Dr. Henry Searby, Dr. W. Sloss, Dr. G. Swinburne, Dr. R. F. Watson, Dr. G. R. Weigall, Dr. L. J. Westacott.

On the appointment of Dr. J. A. Cahill as a trustee of the Medical Society of Victoria, Dr. Alan B. McCutcheon was appointed to his position of representative of the North-Eastern Suburban Subdivision, and on the retirement of Dr. F. E. McAree, Dr. J. Gavin Johnson was appointed to his position of representative of the South Central Suburban Subdivision.

Under Rule 9 of the Branch, Council elected Dr. Elizabeth McComas, who was nominated by the Victorian Medical Women's Society.

The following are *ex-officio* members: the trustees of the Medical Society of Victoria, Dr. J. A. Cahill, Dr. H. C. Colville, Dr. F. L. Davis, Dr. J. Newman Morris and Dr. D. Roseby, Dr. Cahill and Dr. Colville having been appointed during the year, and the representative of the Australasian Medical Publishing Company, Limited, Dr. J. P. Major.

Cooption.—Dr. H. G. Furnell, Dr. H. Maxwell James and Dr. J. H. Lindell were coopted members of the Council.

The Council elected the following office-bearers:

President: Dr. A. E. Coates.
Vice-Presidents: Dr. F. Kingsley Norris and Dr. D. J. Thomas.
Chairman of Council: Dr. H. C. Colville.
Honorary Secretary: Dr. R. F. Watson.
Honorary Treasurer: Dr. J. A. Cahill.
Honorary Librarian: Dr. D. J. Thomas.

The executive consisted of the president, the immediate past president, Professor P. MacCallum and other office-bearers.

Attendances at Council Meetings.

Thirteen Council meetings were held, the following showing the attendances:

Dr. R. F. Watson	13	Dr. H. M. James[2]	8
Dr. G. Raleigh Weigall	13	Dr. F. L. Davies	8
Dr. H. C. Colville	12	Dr. Arthur Brown	7
Dr. Robert Southby	12	Dr. J. H. Gowland	7
Dr. G. Swinburne	12	Dr. J. Newman Morris	7
Dr. J. A. Cahill	11	Dr. L. A. Neal	7
Dr. B. D. Fethers	11	Dr. J. H. Lindell[2]	7
Dr. D. Roseby	11	Dr. D. J. Thomas	7
Dr. L. H. Ball	10	Dr. H. G. Furnell[2]	6
Dr. M. H. Box	10	Professor P. MacCallum	6
Dr. Charles Byrne	10	Dr. J. G. Johnson[2]	6
Dr. A. E. Coates[1]	10	Dr. J. P. Major	5
Dr. Kenneth Smith	10	Dr. V. Davies	4
Dr. D. A. Carter	9	Dr. A. B. McCutcheon[2]	3
Dr. Victor Hurley	9	Dr. John Dale[2]	3
Dr. L. W. Johnston	9	Dr. P. Goodman	3
Dr. Elizabeth McComas	9	Dr. F. Kingsley Norris[1]	3

[1] Granted leave of absence during the year.
[2] Appointed during the year.

Dr. W. Sloss	3	Dr. G. Forsyth	1
Dr. L. J. Westacott...	3	Dr. J. S. Green[1]	1
Dr. A. B. Hewitt	2	Dr. F. E. McAree[2]	1
Dr. D. G. MacKellar ..	2	Dr. H. Searby	6

[1] Granted leave of absence during the year.
[2] Resigned during the year.

The highest attendance at any one meeting was 29, and the average attendance was 23.

Appointment of Subcommittees.

The following subcommittees were appointed by the Council at the beginning of the year (the first-named acting as convener of the subcommittee):

Ethics.—Dr. Major, Dr. F. L. Davies, Dr. Green, Dr. Morris, Dr. Smith and the executive.

Finance, House and Library.—Dr. Cahill, Dr. Norris, Dr. Smith and Dr. Thomas.

Legislative.—Dr. Dale, Dr. Colville, Dr. F. L. Davies, Dr. Gowland, Dr. Green and Dr. Watson.

Organization.—Dr. Watson, Dr. Cahill, Dr. Colville, Dr. Ball, Dr. Box, Dr. Brown, Dr. Byrne, Dr. Dale, Dr. Fethers, Dr. Gowland, Dr. Green, Dr. Hurley, Dr. L. W. Johnston, Dr. McAree, Dr. McComas, Dr. Neal, Dr. Roseby, Dr. Searby, Dr. Smith, Dr. Southby, Dr. Swinburne, Dr. Weigall, and representatives of the country subdivisions. (On their appointment to Council, Dr. Furnell, Dr. J. G. Johnson and Dr. McCutcheon were appointed also to the Organization Subcommittee.)

Science.—Professor MacCallum, Dr. Coates, Dr. Johnston, Dr. McAree, Dr. Norris, Dr. Searby, Dr. Watson and Dr. Lindell, who was appointed on his cooption to Council.

Hospital.—Dr. Southby, Dr. Ball, Dr. Colville, Dr. Fethers, Dr. Hurley, Dr. Neal, Dr. Smith, Dr. Watson and Dr. Weigall, and Dr. Lindell and Dr. James, who were appointed on their cooption to Council.

Correspondence.—Dr. Colville and Dr. Watson.

Workers' Compensation.—Dr. Searby, Dr. Byrne, Dr. Colville and Dr. Gowland.

Publicity.—Dr. Dale, Dr. Green, Dr. Thomas and the Medical Secretary.

Rehabilitation.—Dr. Johnston, Dr. Furnell, Dr. Hurley, Dr. Norris, Professor MacCallum, Dr. Smith, Dr. Thomas, Dr. Swinburne and Dr. Weigall.

Appointments and Nominations.

Trustees of the Medical Society of Victoria.—Dr. J. A. Cahill, Dr. H. C. Colville, Dr. F. L. Davies, Dr. J. Newman Morris and Dr. D. Roseby.

Central Council, British Medical Association.—Dr. J. H. Anderson.

Federal Council.—Dr. H. C. Colville, Dr. F. L. Davies and Dr. Victor Hurley.

British Medical Agency.—Directors: Dr. F. K. Norris, Dr. J. A. Cahill, Dr. G. Robinson and Dr. C. H. Dickson. Manager: Mr. G. Feely.

British Medical Insurance Company of Victoria.—Directors: Dr. J. Newman Morris (chairman), Dr. Victor Hurley, Dr. W. W. S. Johnston, Dr. L. S. Latham, Dr. F. Kingsley Norris. Secretary: Mr. J. M. Ford.

Victorian Correspondent, "The Medical Journal of Australia".—Dr. H. Boyd Graham.

Victorian Correspondent, "British Medical Journal".—Dr. H. Boyd Graham.

Victorian Bush Nursing Association.—Dr. Elizabeth McComas.

Hospital Benefits Association.—Dr. J. A. Cahill, Dr. C. H. Dickson, Dr. F. Kingsley Norris and Dr. D. Roseby.

Electoral Board, Medical Staffing of Base Hospitals.—Dr. J. P. Major and Dr. F. Kingsley Norris.

Medical Eye Service of Victoria.—Dr. T. a'B. Travers.

Free Kindergarten Union.—Dr. H. Boyd Graham.

Victorian Baby Health Centres' Association.—Dr. H. Boyd Graham.

Melbourne University Union.—Graduates' Section: Dr. H. Douglas Stephens.

Victorian Institute of Hospital Almoners.—Dr. J. Newman Morris.

Lord Mayor's Fund.—Dr. J. Newman Morris.

Victorian Council for Mental Hygiene.—Dr. John Dale and Dr. A. P. Derham.

Melbourne Permanent Post-Graduate Committee.—Professor P. MacCallum, Dr. J. P. Major and Dr. B. Milne Sutherland.

Returned Medical Officers' Relief Fund, Advisory Committee.—Dr. J. A. Cahill, Dr. F. L. Davies and Dr. W. G. D. Upjohn.

Federal Medical War Relief Fund.—Dr. J. A. Cahill, Dr. F. L. Davies and Dr. W. G. D. Upjohn.

Australian Aerial Medical Services.—Dr. J. Newman Morris.

Nurses' Board.—Dr. John S. Green and Dr. W. W. S. Johnston.

Dietetic Association of Victoria.—Dr. John Dale.

Society for Crippled Children.—Dr. H. Boyd Graham.

Anti-Cancer Council of Victoria.—Dr. Victor Hurley, Dr. J. E. Clarke and Dr. Henry Searby.

Opticians' Registration Board.—Dr. T. a'B. Travers and Dr. A. H. Joyce.

City Electoral Roll.—Dr. C. H. Mollison.

Masseurs' Registration Board.—Dr. C. H. Hembrow and Dr. F. May.

National Safety Council of Australia.—Professor Osborne.

Contract Practice Subcommittee, Federal.—Dr. C. H. Dickson.

Trustees, Income Insurance Fund.—Dr. H. C. Colville, Dr. F. L. Davies, Dr. J. P. Major and Dr. B. Milne Sutherland.

Joint Insurance Adjudication Committee.—Dr. H. Searby and Dr. D. Roseby.

Provisional Council of Speech Therapy.—Dr. Robert Southby.

Committee on Industrial Accident Statistics (Standards Association of Australia).—Dr. John Gowland.

Annual Representative Meeting, British Medical Association, London, 1947.—Dr. John Dale.

International Congress on Rheumatic Diseases, Copenhagen, 1947.—Professor S. D. Rubbo.

Branch Convocation.

The following were elected for the year 1947: Melbourne Central, Dr. C. J. O. Brown, Dr. E. E. Dunlop, Dr. C. H. Fitts, Dr. L. Lloyd Green, Dr. J. G. Hayden, Dr. L. S. Latham, Dr. T. G. Miller, Dr. G. N. Morris, Dr. F. Niall, Dr. H. Phillips, Dr. H. Douglas Stephens, Dr. G. R. A. Syme, Dr. M. Tallent; North-Eastern Suburban, Dr. A. Ley, junior, Dr. S. D. Mecoles; South Central Suburban, Dr. R. D. Aitchison, Dr. A. I. Green, Dr. Harley Grover, Dr. J. G. Johnson, Dr. W. Johnstone, Dr. C. Worch; South-Eastern Suburban, Dr. J. Adamson, Dr. C. Evans, Dr. G. Foreman, Dr. E. Kirsner, Dr. J. K. D. Mackenzie, Dr. L. Nicholson, Dr. R. M. Shaw, Dr. J. Glyn White; Eastern Suburban, Dr. J. Biddle, Dr. Ian Cameron, Dr. H. G. Judkins, Dr. E. McKay, Dr. J. G. McMahon, Dr. W. J. Rawlings, Dr. R. H. Stevens, Dr. L. P. Wait, Dr. G. Watters; Southern Suburban, Dr. A. J. Carrol, Dr. E. M. Ettelson, Dr. W. H. Fitchett, Dr. L. Middleton, Dr. T. O. Sayle, Dr. D. Zacharin; Western Suburban, Dr. L. Joel, Dr. F. C. H. Ross; Northern Suburban, Dr. W. Brownell, Dr. S. Fredman, Dr. D. Lear, Dr. M. Morris, Dr. D. F. O'Keefe; Geelong, Dr. R. L. Fulton, Dr. D. A. Kidd; South-Western Country, Dr. S. C. Fitzpatrick, Dr. R. B. Knox; Goulburn, Dr. D. G. Mackellar; Gippsland, Dr. B. L. Deans, Dr. D. I. Fitzpatrick; North-Eastern Country, Dr. H. J. Enniss; North-Western Country, Dr. B. H. Jones, Dr. W. Matheson; Ballarat, Dr. E. Guymer, Dr. T. G. James; Bendigo, Dr. A. E. Lincoln, Dr. P. R. Slater.

Membership Roll.

The number of members on the roll at October 31, 1947, was 2010, which is 61 more than last year. One hundred and fifty members were added (101 by election, 3 members were reinstated by payment of arrears, and 46 were transferred from other States) and 89 names were removed (24 by death, 18 by resignation, 42 by transfer to other States and five members allowed their subscriptions to fall into arrears).

Honorary medical members numbered 27.

Honorary student associates numbered seven.

The death of the following members and former members is recorded with regret: Dr. Alan Boan, Dr. R. C. Brown, Dr. W. M. Butler, Dr. M. J. Costelloe, Dr. S. O. Cowen, Dr. W. J. Craig, Dr. C. Dinwoodie, Dr. Bryan Foster, Dr. B. B. Garret, Dr. John Gray, Dr. W. C. Grindrod, Dr. W. E. Harrison, Dr. John Jones, Dr. Joseph Kelly, Dr. J. P. Kelly, Dr. J. W. Kenny, Dr. Basil Kilvington, Dr. A. T. Langley, Dr. R. G. McPhee, Dr. R. L. Morton, Dr. R. L. Park, Dr. W. McL. Smithers, Dr. W. F. Stephens, Dr. R. E. Weigall, Dr. J. F. Williams, Dr. J. R. Williams, Dr. B. T. Zwar.

After the death of Dr. B. T. Zwar the following minute was recorded:

> The Council of the Victorian Branch of the British Medical Association records with regret the death of Bernard Traugott Zwar, C.M.G., M.D., M.S., F.R.A.C.S., who, as a member of the Branch Council, and its President in 1929, President of the Royal Melbourne Hospital, Deputy Chancellor of the University of Melbourne and the holder of many other public offices, rendered distinguished service to the medical profession and the people of Victoria. The Council extends its sympathy to his widow and his son, Dr. John Zwar.

Roll of Honour, 1939-1945.

Major Eric Bailhache, Flight-Lieutenant W. R. Brodrick, Major J. F. Chambers, Lieutenant-Colonel Eric Cooper, Captain W. G. Cuscaden, Captain J. F. Davies, Captain C. S. Donald, Major-General R. M. Downes, Surgeon Lieutenant J. M. Gaskell, Surgeon Lieutenant-Commander F. H. Genge, Surgeon Commander J. R. Hasker, Captain J. C. R. Joyce, Captain G. L. Lindon, Flight-Lieutenant F. H. Lord, Major H. F. G. McDonald, Captain D. R. McFarlane, Surgeon Lieutenant W. J. McLaren-Robinson, Major N. V. McKenna, Surgeon Lieutenant D. N. McKenzie, Lieutenant-Colonel C. P. Manson, Captain A. D. Mawson, Captain J. F. Park, Colonel D. C. Pigdon, Lieutenant-Colonel K. C. Ross, Captain D. J. Shale, Major Z. Schwartz, Captain H. N. Silverman, Major W. McL. Smithers, Flight-Lieutenant Stuart Thomson, Surgeon Lieutenant-Commander E. M. Tymms, Major C. E. Watson, Captain S. I. Weir.

Honours Conferred by His Majesty the King for Services Rendered during the 1939-1945 War.

C.B.—Air Vice-Marshal T. E. V. Hurley, C.M.G., V.D.

C.B.E.—Colonel A. P. Derham, M.C., Brigadier H. C. Disher, E.D., Brigadier H. G. Furnell, D.S.O., Colonel A. H. Green, Brigadier W. A. Hailes, D.S.O., Colonel J. G. Hayden, Brigadier W. W. S. Johnston, D.S.O., M.C., Colonel C. W. B. Littlejohn, O.B.E., M.C., C. de G., Brigadier F. K. Norris, D.S.O., E.D., Colonel N. L. Spiers, V.D.

D.S.O.—Lieutenant-Colonel K. J. J. Dorney, Colonel W. W. Lempriere, Major F. Douglas Stephens.

O.B.E.—Colonel J. M. Blair, M.B.E., Lieutenant-Colonel A. E. Coates, Lieutenant-Colonel E. E. Dunlop, Surgeon Lieutenant J. S. Guest, Wing Commander R. R. Macdonald, Lieutenant-Colonel W. Refshauge, Wing Commander S. F. Reid, Lieutenant-Colonel R. Smibert, Lieutenant-Colonel J. Glyn White.

M.B.E.—Captain A. G. Carter, Major H. V. Francis, Flight-Lieutenant J. Grantley Shelton, Lieutenant-Colonel J. O. Smith, Lieutenant-Colonel L. G. Travers, Colonel Ian Wood.

D.S.C.—Surgeon Lieutenant-Commander E. M. Tymms, deceased.

M.C.—Major J. F. Connell, Major V. E. Sampson.

Congratulations.

During the year Council had pleasure in conveying congratulations to Dr. Michael Kelly, winner of the Buckston Brown Prize, and to Mr. Victor Hurley on his appointment as President of the Royal Melbourne Hospital.

The Stawell Memorial Prize.

Acting on the recommendation of the examiners, the trustees of the Stawell Memorial Prize did not award the prize for 1946.

Australasian Medical Congress.

The Sixth Session of the Australasian Medical Congress (British Medical Association) will be held at Perth, Western Australia, from August 15 to 21, 1948, and the Committee of Congress will keep members informed of arrangements through THE MEDICAL JOURNAL OF AUSTRALIA.

Crawford Mollison Scholarship.

The Council has given its full support to the proposal of the honorary medical staff of the Women's Hospital that a Crawford Mollison Scholarship in Pathology should be established in honour of Dr. C. H. Mollison, and members will later be invited to contribute to the Scholarship Fund.

Golf Tournament.

The eighth annual golf tournament of the Branch was held on November 27, 1946, at the Royal Melbourne Golf Club, East Course. The championship cup (The Weigall Cup) was won by Dr. E. A. Eddy, the handicap cup (The Roseby Cup) by Dr. F. D. Burke, and the spoon competition by Dr. H. H. Jackson and Dr. F. D. Burke.

Meetings of the Branch.

The following Branch meetings were held in Melbourne:

February.—"The Historical Development of Obstetrics and Gynæcology", Sir William Fletcher Shaw. (This meeting was held in association with the Melbourne Permanent Post-Graduate Committee.)

March.—"The Diagnosis and Treatment of Anxiety States", by Dr. W. E. Wilson. A special general meeting was also held in March to consider the appointment of Dr. H. C. Colville and Dr. J. A. Cahill as trustees of the Medical Society of Victoria.

April.—Projection of films: "The Ligature Operation for Internal Hæmorrhoids", "Combined Perineo-Abdominal Resection of the Rectum for Carcinoma", and "An Operation for Hydatid of the Liver", by Mr. Balcombe Quick and Mr. J. B. Turner.

May.—"A Recent Visit to the British Commonwealth Occupation Forces, Japan", by Dr. J. Newman Morris.

June.—"The Future of Medical Practice", by Dr. Douglas Robb, of Auckland, New Zealand.

July.—"Restoration and Resuscitation Therapy", by Dr. Lucy Bryce and Dr. E. B. Drevermann. A special general meeting was also held in July to consider an alteration to Rule 9 in regard to the number of trustees of the Medical Society of Victoria.

August.—The Seventh Triennial Syme Memorial Lecture: "The Military Surgeon—His Selection, Training, and the Scope of His Work", delivered by Mr. W. A. Hailes.

September.—"Some Therapeutic Agents of the British Pharmacopœia, 1947", by Dr. Byron Stanton. A special general meeting was also held in September to explain the views of the Federal and Branch Councils on the *Pharmaceutical Benefits Act*, 1947, and the government proposals regarding a national medical service, and to permit a general discussion regarding the proposed Model Common Form of Lodge Agreement.

October.—The Fourteenth Sir Richard Stawell Oration, "Silver Spoons and Golden Genes", delivered by Sir Alan Newton.

November.—"The General Practitioner and the Specialist", by Dr. Leslie Hurley.

The following country meetings were held:

April.—Ballarat: A discussion on the after-treatment of surgical operations. Opening speakers, Dr. Geoffrey Penington and Dr. Alwynne Rowlands.

July.—Geelong: "Recent Advances in Anæsthesia", by Dr. R. H. Orton and Dr. A. L. Bridges-Webb.

October.—Wangaratta: "The Treatment of the Toxæmias of Pregnancy, including Hyperemesis-Gravidarum, the Pre-eclamptic State and Eclampsia", by Dr. Arthur Hill.

The following clinical meetings were held:

May.—Alfred Hospital.

August.—Royal Melbourne Hospital.

September.—Pathology Department, University of Melbourne.

November.—Children's Hospital.

Country Branch Meetings and Clinical Meetings.

The holding of Branch meetings in country centres, which was in abeyance during the war, was this year resumed, very successful week-end meetings being held at Ballarat, Geelong and Wangaratta. The Branch Council expresses its appreciation and thanks to the committees and honorary secretaries of subdivisions for the excellent arrangements made for the conduct of the meetings, to the wives of members of the subdivisions for their kindnesses and hospitality to visiting members and their wives, and to the committees of base hospitals for the provision of facilities. At the Ballarat and Geelong meetings civic and parliamentary representatives were guests at dinner.

Council also expresses its appreciation and thanks to the staffs of the Alfred, Royal Melbourne and Children's Hospitals, and to the staff of the Pathology Department of the University of Melbourne for arranging very successful clinical meetings during the year.

Business of Council.

Following the acquisition of "social service" powers by referendum, the Commonwealth Government passed the

Pharmaceutical Benefits Act, 1947. Despite the fact that the Minister of Health, Senator McKenna, was fully informed by a committee of the Federal Council of the objections of the medical profession to certain principles included in the act of 1944-1945, the act of 1947 perpetuates the objectionable features of the earlier legislation in that control of the legislation is vested in the Director-General of Health, "free medicine" is limited to those preparations contained in a formulary, and then only if written on special prescription forms, power is taken under the act to make contracts with doctors to write prescriptions (in effect to provide a medical service), and there is wide regulation-making power in the act, under which penalties may be imposed on doctors. Consequently the Federal Council, supported by the Branch Council, recommends to members that they should refuse to use the formulary and the prescribed forms when requested to do so by the Government, and members may follow that recommendation with clear consciences, as by so doing they will not commit any breach of law.

At a conference on July 21, 1947, between Senator McKenna and the Federal Council, it was learned that the Government desires to carry out its policy of providing a complete medical service to every individual in Australia without cost to the individual beyond the cost of taxation, and that it was the anticipation of Government that private medical practice would eventually disappear. How the Government proposes to provide the service is not clear, but the Branch Council adheres to the policy that the only method which might be acceptable to the medical profession would be a "fee-for-service" system.

Following representations to the Government of Victoria that a Hospitals Commission should be established to coordinate and plan the hospital system of the State, the ministry set up a Committee of Inquiry to examine the proposal, and the report of that committee recommended that a commission be established. The necessary legislation was formally introduced to Parliament, but lapsed with the recent dissolution.

After seven years of negotiations between the Federal Council of the British Medical Association in Australia and the Federal Consultative Council of Friendly Societies of Australia, agreement was reached on a new Model Common Form of Agreement, but the Friendly Societies Association of Victoria has advised that, although it desires to discuss a new agreement, the Model Common Form is not acceptable.

At a conference with the Medical Agreement Committee of the Friendly Societies Association of Victoria it was agreed that, if a lodge medical officer conducted the after-treatment of a surgical operation, he was entitled to a fee, provided that the position was clearly explained to the patient at the time of operation.

During the year members were advised to enforce the income limit provisions of the existing lodge agreement.

Discussions are proceeding with representatives of the State Government regarding terms under which medical service will be provided to children under the care of the Children's Welfare Department.

Representatives of the Branch Council appeared as witnesses before the Public Service Board in support of the claim of medical officers in the State Health Department for an increase in their salaries. A recent determination of the Board has granted some increase in salaries, but has perpetuated the objectionable system of differentiation in salaries payable to male and female medical officers.

Acting on the recommendation of a subcommittee of members of the Central Subdivision, it has been recommended to the Federal Council that the rates of payment for sessional services rendered in repatriation hospitals should be increased.

It was decided during the year to recommend to the medical agents of Victoria that *locum tenentes* should be paid three guineas per week, plus the cost of petrol and oil, for the use of their cars.

At conferences with the Committee of the Yallourn Medical and Hospital Society, dissatisfaction with the terms of employment of junior medical officers engaged by the society was expressed, and discussions are proceeding.

In view of the growth of membership of the Branch and the alteration of distribution of doctors in Victoria, the question of replanning the Branch subdivisions is being considered by a special subcommittee.

During the year the Branch Council launched two appeals —a "Food for British Doctors Fund" and a fund to assist the widows and children of Victorian medical practitioners who lost their lives in the war of 1939-1945 which will be known as the "British Medical Association (Victorian Branch) Legacy Fund".

The Branch's architect has drawn preliminary plans for the erection of a new building on land purchased at the corner of Albert and Lansdowne Streets, East Melbourne, and it is hoped that before many years have passed a building worthy of the Victorian Branch of the British Medical Association will be constructed.

The above references relate only to the major activities of the Council, the subcommittees and executive dealing with a great many minor matters.

Federal Council.

The Federal Council met in Melbourne in March and July and full reports of the proceedings of the meetings appeared in THE MEDICAL JOURNAL OF AUSTRALIA of April 19 and September 6, 1947.

Reports of Subdivisions.

Metropolitan.

South-Eastern.—The annual meeting was held on July 10, 1947, at the residence of Dr. V. C. Brown. The following office-bearers were elected for the year 1947-1948: President, Dr. V. C. Brown; Vice-Presidents, Dr. Kirsner and Dr. Fone; Honorary Secretary, Dr. Fethers.

Dr. Dickson and Dr. Davies addressed the meeting on the *Pharmaceutical Benefits Act* and its implications.

The question of a golf tournament was raised, and it was decided to circularize the members to ascertain if sufficient were interested. This was done, and as only twelve members indicated their willingness to participate, the matter was dropped.

B. D. FETHERS,
Honorary Secretary.

Eastern.—Office-bearers: President, Dr. W. E. Hewitt; Secretary, Dr. Keith H. Hallam. Meetings in private houses of members of the subdivision were resumed. The usual attendance was about forty members at each meeting. Dr. R. Lawson gave a lecture demonstration on "Injuries at the Elbow Joints in Children"; Dr. John Hayward addressed members on "Thoracic Surgery"; and Dr. Murray Clarke on "Osteochondritis". The *Pharmaceutical Benefits Act* and a nationalized medical service were freely discussed at various meetings. Following the untimely loss of our chairman, Dr. Arthur Langley, Dr. W. E. Hewitt was elected to succeed him.

KEITH H. HALLAM,
Honorary Secretary.

Melbourne Central.—There have been two general meetings of members during the year, and four meetings of sub-committees appointed by the general body of members.

The first general meeting was held at 4.30 p.m. on July 17 with 23 members present. Dr. A. E. Coates was elected President for the year, and Dr. George Swinburne elected Honorary Secretary in place of Dr. Guy Springthorpe, who resigned.

The workers' compensation schedule was discussed; the question of sessional payments at hospitals was raised and it was decided to hold a special meeting to discuss this. This meeting was held on August 11, at 8.15 p.m., with 67 members present.

Subsequently a subcommittee made certain suggestions in regard to the revision of the rates of remuneration of the visiting medical staff of repatriation hospitals.

All suggestions at meetings were forwarded to the Branch Council as an expression of the opinion of the members of the Central Subdivision.

GEORGE SWINBURNE,
Honorary Secretary.

Southern.—Office-bearers: Chairman, Dr. Norman Wilson; Honorary Secretary, Dr. H. F. Tucker. The subdivision held only one meeting during the year, when forty members attended. The subjects under discussion were: (i) fees in workers' compensation cases; (ii) lodge income limits; (iii) free medicine.

H. F. TUCKER,
Honorary Secretary.

South Central.—Office-bearers: Chairman, Dr. H. Grover; Honorary Secretary, Dr. J. Gavin Johnson. A meeting was held at the home of the chairman, Dr. Grover, on March 19, when eight members of the subdivision were present. Dr. J. Gavin Johnson was appointed honorary secretary of the subdivision and nominated as subdivisional representative on the Branch Council. Dr. Gowland gave a report on recent negotiations between Government representatives and representatives of the British Medical Association, and also, on negotiations in progress between the friendly societies and the British Medical Association regarding an increase in lodge rates and the adoption of the Common

Form of Agreement. A further meeting was held at Dr. Grover's home on July 15, 1947, at which thirteen members of the subdivision were present. Dr. C. H. Dickson and Dr. R. Watson was present and were cordially welcomed by the President. Dr. R. Douglas Aitchison was elected President for the following year and Dr. J. Gavin Johnson was reelected Honorary Secretary. Dr. Dickson gave a full and able report on the position of the lodge agreement and the *Workers' Compensation Act*.

J. GAVIN JOHNSON,
Honorary Secretary.

Western.—The subdivision during the year was unfortunate in the loss of the late Dr. M. J. Costelloe, who had held the position of Honorary Secretary for approximately twenty years. Our sympathy is extended to his widow, son and daughters.

An attempt is being made by members of the honorary staff at the Williamstown Hospital to increase the activities of this section of the association. A series of lectures has been arranged, and orthopædic, surgical, medical and obstetrical lectures are to be given periodically by recognized leaders of the profession. The first of this series was given by Mr. John B. Colquhoun on July 16. His subject was "Pathological Conditions of the Hip Joint in Childhood", and the lecture was illustrated by X-ray films, and an interesting case of slipped epiphysis of the hip joint was demonstrated. The next lecture was given on October 15 by Mr. John Devine, his subject being "Recent Surgical Work and its Application to Daily Practice". Arrangements have been made for the following lectures in 1948: January 14, Dr. R. Worcester (obstetrical); April 14, Dr. M. Davis (medical); July 14, Mr. N. Harry (surgical). It is hoped that all members of the subdivision will attend this series.

During the year Dr. C. H. Dickson attended meetings at the Williamstown Hospital, the residence of Dr. H. Box, Footscray, and the Moonee Ponds Town Hall, where he addressed members on the important subjects of the new lodge agreement, the pharmaceutical bill and nationalization of medicine. The thanks of the Branch are due to Dr. Dickson for his tireless efforts to enlighten members of the association and keep them abreast with recent developments and with the activities of the Federal Council.

L. JOEL,
Honorary Secretary.

Country.

North-Western.—On July 26, 1947, a meeting was held at Horsham to discuss the clauses of the agreement with the Fire and Accident Underwriters' Association of Victoria in relation to fees for workers' compensation cases. It was agreed that several alterations be recommended to the Council.

On October 11 and 12 the Melbourne Permanent Post-Graduate Committee conducted a refresher course at Horsham. This was well attended by members, and all expressed their appreciation of the subjects presented.

During the past year the subdivision has added several new members and plans for future clinical meetings were discussed.

B. HUTTON-JONES,
Honorary Secretary.

Gippsland.—Office-bearers: Chairman, Dr. J. M. Andrew; Honorary Secretary, Dr. D. I. Fitzpatrick. The following meetings were held: March 1, clinical meeting at Warragul, at which Dr. Grayton Brown spoke on "Acute Surgical Abdominal Conditions"; April 12 and 13, Melbourne Permanent Post-Graduate Committee week-end course at Sale, at which Dr. Graeme Robertson spoke on "Epilepsy", Dr. Byron Stanton on "Prescribing", Dr. A. M. Wilson on "Obstetric Problems", and Dr. C. Osborn on "Orthopædics". Both meetings were well attended.

DAVID I. FITZPATRICK,
Honorary Secretary.

Geelong.—Office-bearers: Chairman, Dr. J. E. Piper; Honorary Secretary, Dr. D. Alan Kidd. The number of members in the subdivision is steadily increasing, and the membership has now grown to a total of fifty-five. In July the Branch held a meeting at Geelong which was well attended. In the afternoon cases were shown and discussed at the Geelong Hospital. Later the President, Dr. J. E. Piper, entertained visitors at his residence, and this was followed by a very enjoyable dinner at the Carlton Hotel, when sixty-four members were present. In the evening a lecture was given by Dr. R. H. Orton and Dr. A. L. Bridges-Webb on "Modern Anæsthesia". During the year a series of Monday demonstrations has been given by the Melbourne Permanent Post-Graduate Committee and an excellent course of lectures delivered.

D. ALAN KIDD,
Honorary Secretary.

Bendigo.—At the annual meeting of the Bendigo Subdivision, Dr. J. W. Cook (Bendigo) was elected President and Dr. Downing (Kyneton) Vice-President. During the year general meetings of the subdivision have been held when members were kept in touch with the affairs of the Branch Council by the reports of our representative, Dr. P. Goodman. In June lectures were given in Bendigo, arranged by the Melbourne Permanent Post-Graduate Committee. The clinical section of the subdivision has resumed activities, and it is proposed to hold meetings at the Bendigo Base Hospital every second month, the first meeting having been very successful with a good attendance.

P. R. SLATER,
Honorary Secretary.

South-Western.—Office-bearers for 1947: Chairman, Dr. John Morlet; Honorary Secretary, Dr. Gerald Watson; Council Representative, Dr. L. J. Westacott.

During the year the membership of the subdivision has increased to 52 members, due mainly to partnerships and assistantships in the larger centres.

Business meetings have been held regularly at three monthly intervals throughout the year. These meetings have been followed each time by a lecture arranged by the Melbourne Permanent Post-Graduate Committee.

A special meeting was held at Warrnambool on July 12, 1947, to discuss the schedule of fees in workers' compensation cases. Dr. C. H. Dickson and Dr. Roy Watson attended this meeting and gave interesting information in connexion with the *Pharmaceutical Benefits Act*, the proposed new lodge agreement, and nationalization of medicine. Their visit was much appreciated by the subdivision.

Other meetings were held at Port Fairy in November, 1946, with a lecture by Dr. John Kelly on "Skin Diseases in General Practice"; at Camperdown in February, 1947, with a lecture by Mr. Brian Keon-Cohen on "Common Foot Disabilities"; at Mortlake in May, 1947, with a lecture by Dr. L. Hurley on "Medical Emergencies", and at Koroit in August, 1947, with a lecture by Dr. S. W. Williams on "Streptomycin and other Recently Developed Drugs in Pædiatrics".

All these meetings and lectures were well attended, and much interesting discussion took place. Over twenty members attended several meetings, and the average attendance was nineteen members.

With active and keen Council representation, the subdivisional members are well informed on current medico-legal matters of importance.

GERALD WATSON,
Honorary Secretary.

Reports of Sections.

Ophthalmology.—During 1947 several meetings of the Victorian Branch of the Ophthalmological Society of Australia were held. Matters discussed included:

1. The teaching of student opticians. The policy to be adopted was debated, and non-cooperation was decided upon unless the *Opticians Registration Act* was altered.

2. National medical scheme—that in any such scheme, all patients seeking eye attention and/or treatment should be under the supervision of an ophthalmologist.

3. Police driving licences and visual standards.

A number of members attended the annual meeting of the Ophthalmological Society of Australia in Sydney in September.

S. GERSTMAN,
Honorary Secretary.

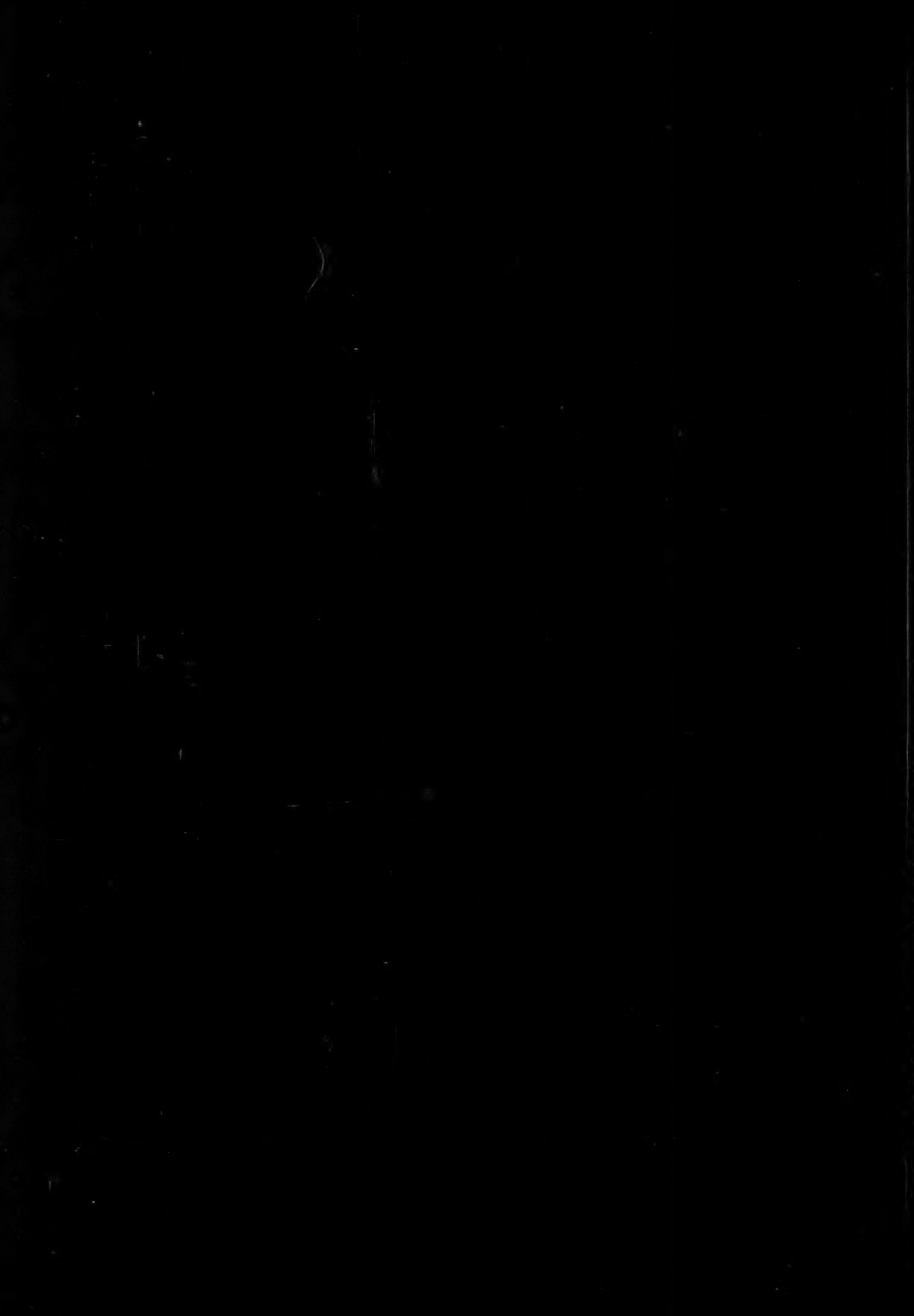
Radiology.—At the initial meeting of the section in February, Dr. E. R. Crisp was reelected President, Dr. Brian Serjeant, Treasurer, and Dr. G. Villiers, Secretary.

The section meetings this year have been devoted to a course of lecture demonstrations by specialists in other branches. We also had combined meetings with the Section of Clinical Pathology and the Pædiatric Society.

It is proposed to change the night of the meeting, as the second Tuesday in the month clashes with several other clinical meetings, but no definite alternative time has yet been fixed.

Several meetings were devoted to the discussion of post-graduate education and nationalization problems.

GWYNNE VILLIERS,
Honorary Secretary.



Obstetrics and Gynæcology.—Office-bearers: Chairman, Dr. E. R. White; Honorary Secretary, Dr. G. B. Bearham. The membership of the section at present totals 34. One meeting was held during the year.

G. B. BEARHAM,
Honorary Secretary.

Clinical Pathology.—An inaugural meeting of clinical pathologists and other interested members of the Branch was held on August 8, 1946, at which a motion was carried unanimously "That a Section of Clinical Pathology be formed within the Victorian Branch of the British Medical Association". Pending approval of the Branch Council to the formation of this section, a provisional committee was nominated, consisting of Professor P. MacCallum (chairman), Dr. H. Bettinger, Dr. Hilda Gardner, Dr. A. Jackson and Dr. Lucy Bryce (honorary secretary). It was later decided that the honorary secretary of the Branch (Dr. R. Watson) should be *ex officio* a member of the committee. At this meeting Dr. Lucy Bryce gave an address on "The Development of Clinical Pathology" (published in THE MEDICAL JOURNAL OF AUSTRALIA, December 14, 1946, page 830).

Approval for the formation of the section was formally given by the Branch Council on September 6, 1946.

Since that date there have been four meetings of the committee and four general meetings of the section.

At its first meeting the committee drew up a suggested constitution for the section, which was submitted to and approved by the first general meeting. The objects of the section as defined in the constitution are:

(i) To promote interest in the medical specialty of clinical pathology.
(ii) To provide clinical pathologists and other members of the profession with opportunities for interchange of ideas and knowledge.
(iii) To consider and take appropriate action in respect of matters affecting the interests of clinical pathologists.

The constitution also provides, *inter alia*, that all members of the Branch shall be eligible to attend general meetings, and to apply for membership of the section. Those whose applications are approved by the committee are enrolled as members of the section, and as such are entitled to put motions, vote and take part in nomination and election of the office-bearers and committee. Professional laboratory workers other than members of the Branch may be invited by members of the section to attend general meetings as guests. General meetings are to be held at approximately three-monthly intervals, and may take the form of lectures, demonstrations at various laboratories, or joint meetings with other sections of the Branch.

The committee has also given consideration to various matters of interest to clinical pathologists which have arisen during the year. Among the most important of these are:

1. The desirability of the establishment in Melbourne of a post-graduate diploma in clinical pathology, about which finality has not yet been reached.

2. A subcommittee, consisting of Dr. Margaret Ashton, Dr. A. Jackson and Dr. Lucy Bryce, was appointed to consider the fees suitable for pathological investigations by practising pathologists. A scale of fees, together with a memorandum embodying comments on the principles on which it was drawn up, and on which it should operate, the performance of pathological investigations by institutional laboratories, and representations which it considered should be made to the Charities Board, was submitted by the subcommittee and approved by the committee of the section and the Branch Council.

3. Government regulations concerning investigation for lead poisoning of workers in specified occupations, as gazetted on July 16, 1947, were discussed. The committee was of the opinion that the collection and examination of blood films and urinary deposits would only be satisfactory if carried out by those experienced in such work, and that fees charged should be in accordance with the approved scale.

The general meetings have taken the following forms:

November 29, 1946: An address by Mr. B. K. Rank on "Some Aspects of the Relationship of Clinical Pathology to Plastic Surgery".

March 13, 1947: A demonstration of the work of the Red Cross Blood Transfusion Service at its blood bank at the Royal Melbourne Hospital.

June 10, 1947: A joint meeting with the Radiological Section, at which Dr. Barbara Wood and Dr. B. Serjeant (radiological aspects) and Dr. A. Pound and Dr. A. Penington (pathological aspects) spoke on "Radiological and Pathological Methods in Diagnosis of Diseases of the Lungs".

September 26, 1947: A demonstration by the staff of the Bacteriology Department, University of Melbourne, and the associated Public Health Laboratory of the methods in use at the department, particularly those of diagnostic value.

The attendance at general meetings has varied between about fifty and ninety members and guests.

LUCY BRYCE,
Honorary Secretary.

Ear, Nose and Throat.—Office-bearers: President, Dr. George Swinburne; Honorary Secretary, Dr. E. Gutteridge.

There are 41 members of this section. Four meetings were held during the year. Dr. Frank Donovan spoke on "Plastic Surgery of the Nose and Ear" and Dr. R. S. Hooper on "Intracranial Abscess following Ear and Nose Conditions: A Neurological Viewpoint".

E. GUTTERIDGE,
Honorary Secretary.

Medical Society of Victoria Library.

The library, to which 101 new books were added during the year, has been constantly in use, and the services of a trained librarian are now available to members.

The total number of books and journals borrowed during the year was 2110, and the supply of the following additional journals has been arranged: *Abstracts of World Medicine, Abstracts of World Surgery, Gynæcology and Obstetrics, American Journal of Roentgenology, Blood, British Journal of Physical Medicine, British Medical Bulletin, The Overseas Post-Graduate Medical Journal.*

Presentations to the library have been made by the following, to whom thanks are tendered: Dr. A. F. C. Day, the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, Dr. E. Gutteridge, Dr. J. G. Hayden, Dr. M. Kelly, Lieutenant-Colonel W. S. Murphy, Dr. C. G. McDonald, Dr. W. G. McGregor, Dr. P. R. Slater and Dr. J. C. Zwar.

Members of the Library Advisory Subcommittee are thanked for their assistance in the selection of new books, and the directors of the British Medical Insurance Company of Victoria for their continued financial assistance to the library funds.

D. J. THOMAS,
Honorary Librarian.

British Medical Insurance Company of Victoria, Limited.

According to the annual report of the British Medical Insurance Company of Victoria, Limited, the opinion of the directors is that the results of the year's operations have not been materially affected by any items of an abnormal character. The profit for the year ended April 30, 1947, was £1286 19s. 4d.

Allocations to the Medical Society of Victoria during the year were: books for library, £127 18s. 6d.; cash, £300; car attendant, £27 10s.

Up to date the company has given books to the value of £1745 and contributed £9021 in cash to the Medical Society of Victoria, donated £100 to the Melbourne Permanent Post-Graduate Committee and £202 to army hospital units for the purchase of medical books. It has also taken up debentures of the Medical Society to the value of £3750, upon which it is accepting interest at the rate of only 1% *per annum*, which, of course, saves the Medical Society a considerable sum in interest.

The directors feel that members of the British Medical Association will be interested to know of the benefits that they have indirectly received through the activities of this company, and feel sure that the knowledge will strengthen the already solid support given by the profession. The company is able to handle any general insurance business.

Victorian Medical Benevolent Association.

During the year the association has carried on its work of rendering assistance to infirm doctors and widows of medical practitioners. The committee of the association thanks all those members of the Victorian Branch of the British Medical Association who have contributed to its funds.

EDWARD L. GAULT,
C. H. DICKSON,
Honorary Secretaries.

British Medical Agency of Victoria, Limited.

Following the death of Mr. William Ramsay, managing director of the agency, Mr. G. Feely was appointed secretary and manager by the directors, Dr. J. A. Cahill, Dr. C. H.

Dickson, Dr. F. K. Norris and Dr. G. Robinson, and since its reorganization the agency has been able to render useful service to doctors in Victoria desiring to buy and sell practices and obtain assistants, partners and *locum tenentes*. The profits of the agency revert to the Medical Society of Victoria, and it is hoped that members of the British Medical Association will give it full support.

On behalf of the directors,

C. H. DICKSON.

Melbourne Permanent Post-Graduate Committee.

The following report is published on behalf of the committee.

During 1947 rehabilitation training of discharged service medical officers has been almost completed. The committee's activities have included general refresher training, courses for higher degrees and diplomas, two short courses by overseas lecturers, and week-end courses in a number of country centres.

For the most stimulating lectures delivered by Professor R. W. Gerard, of Chicago, the committee is indebted to the Australian National University.

An outstanding event of the year has been the overseas liaison tour of the director, Dr. F. Kingsley Norris. The tour embraced Singapore, Burma, India, Great Britain, Canada and the United States of America, and its three main aspects were the provision of facilities for Australian graduates to study and work abroad, discussion of facilities for visiting medical men to undertake post-graduate training in Australia, and a study of methods for post-graduate teaching available in other countries. It proved a most valuable trip and will no doubt stimulate post-graduate education both here and abroad.

A. E. COATES, President.
ROY F. WATSON, Honorary Secretary.
C. H. DICKSON, Medical Secretary.

It is to be noted that there is an increasing demand for the services of the Medical Secretary by members of the profession and for consultations with outside bodies with which the association has contacts. This very necessary and desirable work has thrown an additional strain on the office resources, and the thanks of the Council are tendered to the Medical Secretary and his staff for their unremitting labours during the past year.

A. E. COATES,
President.

INSTALLATION OF THE PRESIDENT FOR 1948.

Dr. A. E. Coates inducted Dr. F. Kingsley Norris as President for 1948 and vacated the chair in his favour. He said that Dr. Norris had for years taken an enthusiastic interest in the affairs of the Association. His high military rank of brigadier was an indication of his faculty for leadership, and he had the temperament and personality needed to fill the position with success.

SCIENTIFIC.

A MEETING of the New South Wales Branch of the British Medical Association was held at Sydney Hospital on September 18, 1947. The meeting took the form of a series of clinical demonstrations by members of the honorary medical staff of the hospital. Part of this report appeared in the issue of January 17, 1948.

Xanthoma Tuberosum Multiplex.

DR. E. H. STOKES presented a woman, aged thirty-three years, suffering from *xanthoma tuberosum multiplex*. She had been first seen on November 10, 1941. At that time the creases of the hands were filled with yellowish material. There were also yellow plaques on the elbows, the knees and the buttocks. Those abnormalities had been present for some weeks. The blood pressure readings were 150 millimetres of mercury (systolic) and 90 millimetres (diastolic). The serum cholesterol content was 535 milligrammes per 100 millilitres. The blood sugar values from a glucose tolerance test formed a mild diabetic curve (Table I). "Tabloid" thyreoid one grain was prescribed to be taken three times daily, and on December 3, 1941, the serum cholesterol content was 210 milligrammes per centum. The patient was advised to reduce the amount of carbohydrate and fat in the diet and the dose of "Tabloid" thyreoid was doubled. On March 3, 1942, it was found that she had lost two stone in weight, the lesions were fewer and smaller and the serum cholesterol content was 245 milligrammes *per centum*. She reported again on September 9, 1943, after not taking the thyreoid preparation for six months. The serum cholesterol had risen to 710 milligrammes *per centum*. Again the lesions improved with treatment. However, she did not persevere with therapy and she was not seen again till March, 1947, when it was noticed that the lesions were increasing in size and number once more. The serum cholesterol content was 1070 milligrammes *per centum*. She also complained of *pruritus vulvæ*, polyphagia, polydipsia and polyuria. The blood sugar values from a glucose tolerance test formed a severe diabetic curve and the basal metabolic rate was +3%. She was admitted to hospital on July 4, 1947, and treated with a diet of 1500

TABLE I.

Time in Relation to Ingestion of Glucose.	Blood Sugar Content (Milligrammes per 100 Millilitres).	Results of Urine Examination.
Before	112	No sugar present
Half-hour after ..	167	—
One hour after ..	203	Sugar present
One and a half hours after ..	187	—
Two hours after ..	165	Sugar present

Calories and with 16 units of protamine zinc insulin and 14 units of ordinary insulin daily. In addition "Tabloid" thyreoid was prescribed in daily doses of three grains. On August 6, 1947, the urine was free of sugar and the serum cholesterol content was 284 milligrammes *per centum*. In addition a decrease in the size and number of lesions was noted. Dr. Stokes remarked that a fall of the serum cholesterol content had occurred on each of the three occasions that the patient had received thyreoid therapy. He considered that in view of the history the condition was one of *xanthoma tuberosum multiplex* associated with *diabetes mellitus* rather than one of *xanthoma diabeticorum*.

Gout.

Dr. Stokes's second patient was a man, aged fifty-five years, suffering from gout. By occupation he was a milk vendor and he was a total abstainer from alcohol. Dr. Stokes said that the patient had been first seen by him on June 27, 1947, in consultation with Dr. A. B. S. Owen, by whose courtesy he was shown at the meeting. Dr. Owen had treated him in 1942 when he was bedridden as a result of the crippling deformities caused by the disease. The initial attack had occurred several years previously, the ball of the right foot being affected. At the time of the meeting tophi were present on the ears, on the elbows and in the scrotum. The interphalangeal joints of the fingers and toes and the metacarpophalangeal and metatarsophalangeal joints were especially affected by the gouty process. The skin over several joints had ulcerated and chalky material containing sodium biurate crystals had been discharged, with subsequent formation of the so-called "gouty whitlows". The blood pressure readings were 170 millimetres of mercury (systolic) and 100 millimetres (diastolic). The urine contained a fair cloud of albumin, but no casts or cells were found on microscopic examination. The blood uric acid content was 5·6 milligrammes per 100 millilitres, the serum cholesterol content 128 milligrammes per 100 millilitres, the blood urea nitrogen content 12 milligrammes per 100 millilitres, and the blood creatinin content one milligramme per 100 millilitres. The urea clearance test (maximal) gave a result 85% of normal, 46 millilitres of blood being cleared per minute, but the urea concentration test gave a poor result, the percentage of urinary urea at the third hour being 1·6.

On June 28, 1945, Dr. Owen had found glycosuria and the blood sugar values of a glucose tolerance test had formed a diabetic curve of moderate severity. Dr. Owen had instituted dietetic measures and the patient, who had previously been obese, had lost considerable weight. In conclusion Dr. Stokes remarked that gout of such a severe degree as that exhibited by the patient was very uncommon in Australia.

Patent Ductus Arteriosus.

Dr. Stokes's third patient was a girl, aged thirteen years, suffering from patent *ductus arteriosus*. A typical machinery murmur was present in the pulmonary area, and on radiological examination it was seen that the pulmonary artery

was enlarged. There was no evidence of failure of general development, of cardiac failure or of bacterial endocarditis. It was proposed to observe the patient's progress.

Instructive Clinical Photographs.

Dr. Stokes next demonstrated photographs of the following conditions: clubbed fingers, gout, mongolism, emphysema, syphilitic chancre, Hodgkin's disease, sclerodactyly, *lipodystrophia progressiva*, rheumatoid arthritis, dwarfism (Lorain type), *myasthenia gravis*, Paget's disease of bone, *xanthoma tuberosum multiplex*, facio-scapulo-humeral dystrophy, Hutchinson's teeth, diabetic gangrene and perforating ulcer, achalasia of the cardia (X-ray film), koilonychia, hypogonadism, and myxœdema before and after treatment. Dr. Stokes said that photographs had been taken by Mr. Appleby, the hospital photographer.

Interesting Electrocardiograms.

The following electrocardiographic abnormalities were then shown: enlarged *P* waves in mitral stenosis, cardiac infarction (anterior and posterior types), auricular flutter, heart block, ventricular premature contractions, auricular premature contractions, digitalis *T* waves, ventricular tachycardia, nodal tachycardia, auricular fibrillation, left bundle branch block, left ventricular hypertrophy, and right axis deviation.

Phonocardiograms.

Finally Dr. Stokes showed phonocardiograms which recorded graphically aortic systolic and diastolic murmurs, a mitral diastolic murmur with presystolic accentuation, a loud pulmonary systolic murmur and quadruple rhythm.

Desmoid Tumour.

DR. S. L. SPENCER presented a married woman, aged twenty-seven years, who had reported complaining of a painless lump in the region of the lower part of the right *rectus abdominis* muscle for some four months, and a similar lump over the right scapula. Neither swelling had caused any pain or other symptom, and the only relevant facts in her previous history were that the patient had had two full-time pregnancies and had undergone an appendicectomy. Examination at the time showed flattened, rounded, very firm swellings, each about one and a half inches in diameter, situated in the lower end of the right rectus muscle or its sheath, and over the lower angle of the right scapula. The patient's admission to Sydney Hospital was recommended, and when she entered hospital some weeks later a further firm, rounded, very mobile swelling was found in the central region of the abdomen with a diameter of approximately two inches, and also a second swelling in the back in the region of the lower thoracic part of the spine. At operation both tumours were removed from the back and a laparotomy was then performed. This showed that the intraabdominal swelling was situated in the mesentery of the jejunum and that it was firmly attached to the duodenum. Its removal involved the resection of the upper part of the mesentery, together with about three feet of jejunum, and it was also necessary to remove portion of the third part of the duodenum. It was then considered unwise to proceed at the same operation to a removal of the tumour of the abdominal wall and the patient was returned to the ward. Convalescence had been satisfactory and the patient was being shown some three weeks after her operation. It was proposed to remove the tumour of the abdominal wall at a later date.

Dr. Spencer considered that the tumour in the abdominal wall had the characteristics of a desmoid tumour or "recurrent fibroid of Paget", in that it had the consistency and general characteristics of a fibroid tumour, and that it had occurred in the vicinity of the rectus muscle in a patient of the usual age range (about twenty to forty years) who had a history of two pregnancies. He said that desmoid tumours were found in female patients in about 90% of instances, and almost always followed injury to the abdominal wall, either obstetrical or surgical. The tumours had a strong tendency to recur locally after removal, but practically never metastasized, and the patient shown was of particular interest in relation to the presence of the other tumours. Histological examination had shown that the tumours from the back were of the nature of simple fibromata, containing adult fibrous tissue and a very few cells. The tumour from the mesentery, while still essentially fibromatous in nature, showed more cellular activity, and was invading the muscular wall of the duodenum. The sections had been seen by Dr. A. A. Palmer and by Professor Keith Inglis, and they had expressed the opinion that the tumours already removed were probably to be regarded as of multicentric origin rather than as metastatic.

Squamous-Celled Carcinoma of the Thigh.

Dr. Spencer's next patient was a woman, aged fifty years, who had noticed a "sore" on the lower anterior portion of the right thigh some four months previously, which she said came "like a boil or carbuncle" and had been painful. There was no history of previous burn or injury at the site, and the patient could recollect no scarring in that part of the body. When seen first, the lesion, which measured about one and a half inches by two and a half inches, presented the appearance of a chronic granulomatous condition, but the result of a Wassermann test was negative, and X-ray examination of the chest showed no tuberculous lesion. A small portion was removed for biopsy and the histological picture was characteristic of a squamous-celled carcinoma. Since the patient had been seen first, the margins of the lesion had developed a macroscopic appearance which was more consistent with its nature.

Dr. Spencer commented on the fact that squamous-celled carcinoma was uncommon in that part of the body, except when it arose in a preexisting cicatrix. It was proposed to treat the carcinoma by excision and to cover the area by rotating a skin flap. No glands could be felt in the inguinal region, and Dr. Spencer invited suggestions as to what should be done with regard to this area.

DR. V. M. COPPLESON expressed the opinion that a dissection of the glands should be carried out soon after the excision of the primary growth.

Hepatico-Jejunostomy for Injury to Common Bile Duct.

Dr. Spencer then showed a man, aged fifty-six years, who about twelve months previously had undergone an operation in another hospital for gall-stones. It had been reported that a thickened gall-bladder with many calculi was removed, but that troublesome bleeding was encountered during the operation. Three or four days after the operation the patient was experiencing a considerable amount of abdominal pain and developed jaundice. From the seventh post-operative day bile drained from the wound and the jaundice cleared up, but the stools remained clay-coloured. When first seen by Dr. Spencer about a fortnight after the operation the patient had an obvious external biliary fistula through a wound in the middle of the upper part of the right rectus muscle. Laparotomy was performed, and the common hepatic duct was found with its opening flush with the lower surface of the liver. The lower end of the common bile duct could not be located. The jejunum was divided near its commencement, and an anastomosis "*en*-Y" performed, a loop of jejunum being left some twenty-four inches in length, which was brought up and anastomosed to the common hepatic duct over a vitallium tube. The patient's condition was satisfactory after the operation with complete internal drainage of bile and no jaundice, but after the lapse of about three months the jaundice returned and X-ray examination showed that the metal tube, although originally secured with silk sutures, had been passed. At a further operation, some five months after the first, a second vitallium tube was introduced, but on this occasion it was necessary to incise the liver to find the common hepatic duct, as the end of that structure had retracted within the liver substance. Dr. Spencer said that it was four months since the second operation, and the patient was improved, but he still showed slight jaundice occasionally.

Leaking Intracranial Aneurysm Treated Surgically.

The last patient shown by Dr. Spencer was a woman, aged forty-five years, who had been sent into Sydney Hospital by Dr. Wilfred Evans under whose care she was admitted. The patient gave a history of severe and intractable headache for five days, beginning in the occipital region and extending forwards. She also complained of vomiting and photophobia. The patient had fainted at the onset, but had been conscious since. She thought that the pain had started more on the right side. Before that acute attack the patient had had occasional headaches, and had been deaf in the left ear for "years"; otherwise the previous history was not relevant. On physical examination the tongue protruded somewhat to the right, but the examination of the central nervous system otherwise revealed no abnormality, except in so far as it confirmed the presence of deafness in the left ear. The blood pressure was 118 millimetres of mercury (systolic) and 70 millimetres (diastolic). Examination of the urine showed no abnormal constituents. The fundi were also free from abnormality. Lumbar puncture revealed blood-stained cerebro-spinal fluid at a pressure of 280 millimetres of fluid. Ten millilitres of fluid were removed, with relief of the headache, which later returned, and a second lumbar puncture two days later

yielded much the same findings. The diagnosis was one of subarachnoid hæmorrhage, and it was felt that the source of the bleeding was almost certainly a congenital intracranial aneurism. Dr. Spencer had endeavoured to obtain an arteriogram by exposing the internal carotid artery under local anæsthesia and injecting "Per-abrodil". Although two injections had been made, on each attempt the contrast medium was arrested at the level of the base of the skull and only entered the cranial cavity. No attempt was made to force the injection. It was concluded that most probably the intracranial portion of the carotid artery was blocked by a thrombus. After some consideration it was thought wisest to ligate the cervical portion of the internal carotid artery, and this was done after formal compression of the vessel, for increasing periods had shown no untoward effect. The patient had had an uninterrupted convalescence and was perfectly well at the time of the meeting.

Arthrodesis of Tuberculous Knee with Smith-Petersen Pin.

DR. HUGH C. BARRY showed a female patient, aged forty years, who first had a tuberculous infection of the right knee joint when aged nine years. She had walked on it ever since, but had developed a marked flexion deformity and had a persistent sinus. An X-ray examination showed complete destruction of the joint. There was no other clinical or X-ray evidence of tuberculosis, and the patient appeared in excellent general health. Nine months before the meeting the joint had been excised and realigned in full extension. To secure complete fixation of the opposing raw surfaces an old type Smith-Petersen pin had been driven obliquely across the tibial and femoral condyles. The patient was immobilized in a plaster spica for four months and was, at the time of the meeting, walking in a caliper. The wound was healed and serial X-ray films showed bony ankylosis proceeding normally though not yet complete. Dr. Barry said that the end results of excision of the knee joint were uncertain, unless some form of internal fixation was used in addition to a plaster spica. A three-flanged nail provided very complete fixation. The old type of non-cannulated Smith-Petersen pins were ideal for the purpose.

Ununited Fracture of the Radius.

Dr. Barry's second patient was a woman, aged forty-six years, who had had a compound fracture of the radius and ulna at the junction of the middle and lower thirds nine months previously. The ulna had united, but there was angulation of the radius and established non-union in spite of adequate immobilization ever since the accident. An inch was excised from the distal end of the ulna (Baldwin's operation) to correct a radial deviation of the wrist and allow full pronation and supination. The atrophied ends of the radius were excised and part of a Kirschner wire was introduced into the medulla of the proximal and distal fragments to hold them in position. The bone ends were then packed with cancellous chips taken from the iliac crest and the arm was immobilized in a plaster cast extending above the elbow. Dr. Barry remarked that, when iliac chip grafts were used to promote union, some form of internal fixation was often necessary, and in the case under discussion an intramedullary pin was considered to have certain advantages. The marked atrophy of the bone at the site of fracture made it difficult to fix either a cortical bone graft or an external steel plate.

Obituary.

ALEXANDER MACCORMICK.

WE are indebted to Dr. B. T. Edye for the following account of the career of the late Sir Alexander MacCormick.

Sir Alexander MacCormick died at his home in Jersey, Channel Islands, on October 25, at the age of ninety-one years.

He was born on July 31, 1856, at Taynish, Argyllshire, Scotland. He received his professional training at the University of Edinburgh, where he graduated in 1880 and afterwards attended the graduation dinner at the Waterloo Rooms, Edinburgh, at which were present also his fellow students, Sir Thomas Anderson-Stuart and Robert Scot Skirving.

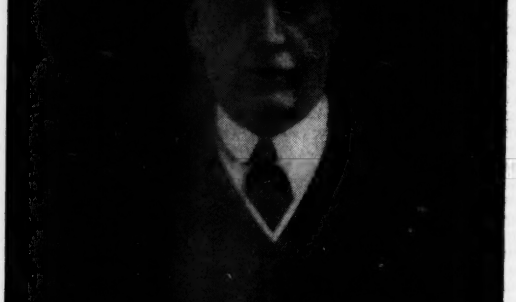
After filling a few minor appointments he became house surgeon to Mr. Bickersteth, of Liverpool, a surgeon of great ability, and one of the first in England to become a follower of Lister. Here he began to practise Lister's methods and had the privilege of having full charge of a proportion of the patients. In conversation he often referred to this period, and there is no doubt that it was in Liverpool that the foundation of his future surgical career was laid. Bickersteth must have been impressed by the enthusiasm of MacCormick, for he frequently invited him to assist at operations on private patients.

When the late Sir Thomas Anderson-Stuart came to Australia in 1883 to found the Sydney University Medical School he immediately began to select members of his staff and secured the appointment of MacCormick as first demonstrator of anatomy and physiology.

MacCormick entered upon his new duties with enthusiasm. He had to prepare personally the whole of the anatomical material, including the preservation and prosecting, used for teaching purposes. This was the second great factor which contributed to his career as a master surgeon. His skill and speed in performance of intricate surgical dissections were phenomenal.

In 1885 he was awarded the M.D. with gold medal of Edinburgh University for a thesis on the musculature of the Australian native cat. In the same year he became a Fellow of the Royal College of Surgeons, Edinburgh.

Soon after his arrival in Sydney he began to take an interest in the clinical work of the Prince Alfred Hospital, which first received patients in 1882. He joined the honorary staff in 1885 as honorary assistant surgeon. Four years later he became a full surgeon and was appointed lecturer in surgery by the University of Sydney. These posts he held until 1915, when he resigned. Then, as is customary, he was made an honorary consulting surgeon to the Royal Prince Alfred Hospital.



For over a quarter of a century the whole of the students who graduated from the Sydney University Medical School were taught by MacCormick, a fact which indicates the vast influence which he exercised upon the standard of surgery in Australia—an influence which is still active and will continue.

MacCormick came to Prince Alfred Hospital as a disciple of Lister and immediately threw himself into the surgical sphere with great energy. This, together with his knowledge of anatomy, produced results which were revolutionary in this country. His fame rapidly spread throughout the length and breadth of Australia and his name became a household word. He was the first one to wear a white coat in the operating theatre, being referred to facetiously by his *confrères* as "The Hokey-Pokey Man". In his earlier years he contributed articles to the medical journals, but, as time passed, he published less and less. Had he been more active with the pen there is no doubt that his name would have become attached to many innovations and advances in surgery. This would apply particularly to the surgery of

hydatid disease of which he probably had a knowledge far in advance of his contemporaries.

In those days before the development of super specialism, there was no branch of surgery in which he did not excel. His diagnostic acumen was most impressive and seemed to depend more on some uncanny instinct than upon a detailed consideration of the available evidence. He was impatient of long histories and protracted discussions. He brushed them aside, gave his opinion, fixed the time of the operation and departed. I once heard a well-known physician lament that he had spent several days endeavouring to make a diagnosis, and MacCormick, when called in, completed it in as many minutes!

He was not considered a good clinical teacher, but those who followed his work closely learnt a great deal and he was always ready to answer questions. So much of his hospital time was given up to operating that he had little left to devote to bedside teaching. He taught by example and always had a large audience of students and graduates.

I joined Sir Alexander as his assistant in 1918, and during the years that followed he worked as regularly and consistently as was his custom. He preferred this, for after his retirement from Royal Prince Alfred Hospital he joined the staffs of Saint Vincent's Hospital and the Prince Henry Hospital. Moreover, after World War I he gave valuable service at the Randwick Repatriation Hospital. He never altered his type of practice, he never abandoned the less fortunate members of the community. To the end of his active career his services were available to all. Apart from his public hospital patients I knew of many instances where he treated patients over the years without financial reward. One patient on whom he had operated many times for hydatid of the abdomen he left to my care with the remark: "I never charge him any fees." For some reason he would take a liking to some poor old patient and would look after him, year in and year out—why, I could not say. Perhaps it was because he was a Scot or had a Scottish ancestry. His love of his own nationals was strong within him and he always went out of his way to entertain noted Scotsmen including Harry Lauder and Will Fyfe.

MacCormick would work for long hours in the operating theatre and never appear to tire, and if anyone suggested he was tired he always denied it. I have known him to return in the early morning from a professional trip to the country and go direct from the station to the operating theatre and his regular day's work. During the years that I was with him there was only one occasion when, as the result of a severe catarrhal cold, he missed a few days from his work.

Because of his eminence as a surgeon he was made an Honorary Fellow of the Royal College of Surgeons of England. He was created a Knight Bachelor in 1913 and K.C.M.G. in 1926. He was a Foundation Member of the Royal Australasian College of Surgeons, member of the Council of the New South Wales Branch of the British Medical Association for many years and its president in 1904.

He served in the South African War as a consulting surgeon with the New South Wales contingent and was mentioned in dispatches. He also served in World War I in France and at Lemnos. His eldest son, Lieutenant Alexander Campbell MacCormick, of the Argyll and Sutherland Highlanders, was killed on October 10, 1916, near Loos, France, at the age of nineteen. As a memorial to him Sir Alexander gave his private hospital, "The Terraces" (now known as the Scottish Hospital), to the Scottish community of New South Wales.

Yachting was his lifetime hobby. He was a member of the Royal Yacht Squadron, was Commodore of the Royal Sydney Yacht Squadron and a member of the Prince Edward Yacht Club. He was the original owner of the well-known yacht *Morna*, and after superintending the building and equipping of his yacht *Ada* in Scotland, he sailed it to Australia via the Panama Canal, and this with a total crew of six persons and without wireless.

On his retirement he made his home at Le Val St. Brelade, Jersey, in the Channel Islands, but he continued his interest in yachting in which he indulged during the season in Scotland. During World War II when the Germans were advancing rapidly into France and because of the censorship the people knew little or nothing of what was happening, Sir Alexander and Lady MacCormick visited London for a few days, as they frequently did. During this short interval the Germans overran the country and made return impossible.

Eventually, after the termination of the war, and after the clearance of the mines set by the Germans, Sir Alexander was allowed to return. Apart from the loss of some of the furnishings little harm had resulted to his home. And it was here he died.

Sir Alexander MacCormick's professional career began with the introduction of Listerism, a period of extraordinary advances in surgery.

He never neglected his journals and he travelled abroad from time to time and so kept himself well informed in his specialty. Even after his retirement he continued to read his journals and frequently referred to this in his letters.

The passing of Sir Alexander marks the end of an era which preceded the advent of super specialism and in which general surgery embraced almost the whole of surgery. He is survived by Lady MacCormick, his two daughters, Mrs. John Martin and Mrs. Colin Anderson, and his son, Mr. Malcolm MacCormick.

Dr. Douglas Miller writes: In spite of his great age, the news that Sir Alexander MacCormick was dead came somewhat as a shock; one had almost come to believe that mortality had been spared him.

My memory turned back about twenty-five years to my first sight of him. He had just returned from a sea trip and was very burnt and ruddy in the face. My memory is of a heavy physique without anything soft in it; of large square hands and keen bright blue eyes. The eyes had a twinkle which belied the popular saying that he had no sense of humour. He had indeed a sense of humour and fun, though it did not always appear spontaneously in response to the conversation or stories going on around him. He could be disconcertingly unresponsive to one's latest bit of fun.

His was a rugged kindly personality. He saw the clear outlines of men and affairs, as he did of surgical problems, and he could sum up people and situations in telling epigram. All who knew him can recount such instances.

He was devoted to surgery, and in spite of his great mastery of the art, he never felt supremacy in himself, and never betrayed complacency or self-satisfaction. He often said: "You can never feel self-satisfied if you practise surgery for long." His frequent travels and his conscientious reading kept his mind ever in a receptive state, his practice always betraying the influence of new ideas. He did not rest on his laurels and never felt that because he had done something it could not be bettered. Those who worked with him came to recognize the periods of anxiety, betrayed by a certain silence and irritability, which preceded any particularly worrying task. His qualms and self-questionings would persist for long after a case had gone wrong. Surgical lessons never left him untutored, and if he was always meticulous over some detail it was because, maybe many years before, he had learnt a lesson. How meticulously always he would drop back the caecum after appendicectomy and wait while he held a little gauze strip down into the iliac fossa. This practice dated back to many years before when he had seen a post-operative hæmorrhage from the appendiceal mesenteric stump. Such little experiences always left their lesson and built up a technique which was outstandingly gentle and cautious, though never timid where courage was needed.

He had no flourishes and was never flamboyant, but quick and effective because he wasted no movements, and no time in idle words. The effect was not dramatic, but had the ease of great artistry.

His physical capacity was very great. He would work through long and arduous operating lists, not as we do today with cool lights and conditioned air, but under hot overhead lamps and in a steamy atmosphere heavy with ether. He felt it so little that he would not even change his clothing. I can see him arriving hurriedly, removing his tie and collar and then his coat with the shirt sleeves cunningly attached, and he was ready for his list. The shirt never got moist as the result of his work. There was no interval for tea. Maybe the list would be over at about 7 o'clock, and with twelve hours of sustained work behind him he would appear as fresh as when he started. This would go on as a regular routine. Each day started at 7.30 with perhaps three or more private operations, then a round, which though rapid, never left an impression of hurry; then a quick review of a great concourse of people at his rooms, followed by a full afternoon's operating in hospital. It was his capacity for going direct to the heart of a problem and his easy, satisfying and sympathetic, though never very communicative, way with patients that made it possible for him to deal with this mass of work.

It would be common for him to have upwards of one hundred patients under his care on any day and to remember all their names and all their surgical details. His system of case recording was almost non-existent and he used no secretary as most people do today. He was all dependent on his rarely failing memory.

He kept himself fit by his regular breaks away from care on his beloved yacht and by a fairly severe personal

discipline. He enjoyed, in their proper place, good drink and good smokes. "If you have to use poisons, use the best."

By his unflagging labours and thrifty virtues he earned a fortune and lived with simple dignity as became his status and importance. He had faithful servants who looked after his wants over many years and were in turn respected and provided for with ample generosity. All doctors in Sydney knew Gibb, the faithful chauffeur.

He had no time for ball games, but loved the sea and trimming his sails to the winds. He was never happier than when sitting at the helm of his beautiful yacht gazing out at the open sea. This love had led him, when yet over seventy, to sail with a small crew from England to Sydney. It was a long ordeal of four months, and significantly enough was never very much discussed afterwards.

We who worked with him never saw him decline. I fancy that when he acutely recognized some early sign of deterioration he decided to stop work. It was characteristic that his great decision was not dramatized or even signalized. A few days before he left he hinted that he might be going to England soon. His assistants knew this already from other sources, and knew that he would not come back. There was, however, no hint of emotion as I assisted him to do his last operation. It was done with all the old precision and skill and never a suggestion that this was the final surgical act of a career that dated gloriously back to the Listerian era. The following day he was gone, and MacCormick, the unchallenged master of surgery for about fifty years, became a memory.

From his retirement he kept up a lively interest in surgical writings, and his correspondents were often asked opinions on the latest developments. In one characteristic letter I received while in the army he discussed the current controversies regarding the care of war wounds and then summed up: "I suppose as ever, the best results will go to the man with common sense." That was typical MacCormick straight seeing.

There is much more one could write of his phenomenal memory for families and their ills, and above all of his great sympathy for human sufferings, the basis of his doctor's calling, which never wearied or wore thin. This made him beloved to a succession of generations and untold numbers of patients and colleagues. We called him "the old man" with the affection and respect that term denotes for those who go down to the sea in ships.

Dr. Kevin Byrne writes: Early in 1916 it was my privilege to become house surgeon to "Old Mac", who was not only a famous world's surgeon, but who was one of the finest characters in the noble profession of medicine. Physically he was of a very strong build, had an honest kindly face, not very loquacious, and with a Scot's canny sense of humour he smiled more with his eyes than his mouth. He was a glutton for work and never seemed to tire.

He was a very hard taskmaster and expected his house surgeon to accept responsibility for every detail connected with his beds. He even blamed his house surgeon (busy at the moment in the operating theatre) if the wrong patient was sent on the trolly from the ward out of turn. In spite of his severity, his fault-finding and criticism during the day (all for the patient's benefit), he would, when leaving, with a kindly twinkle, extend his big but gentle hand and say: "Thanks, old man, for all you've done for me today" . . . and hesitatingly . . . "Ah . . . would ye mind ringing up my housekeeper and tell her I've been detained . . . I shan't be home for dinner . . . I meant to, but I forgot . . . you know the wife's in England and a good housekeeper's hard to get . . ." I think "Old Mac's" good housekeeper was the only person of whom he stood in awe.

His relaxation was that perfect one for a doctor—sailing. He would take his 60-foot cutter *Morna* on the harbour on Sundays from 10.30 a.m. to 5 p.m., but was always punctually on the 'phone at 5.30 p.m. to ask: "What's my operation programme tomorrow?"

He always preferred bold incisions to "fiddling" ones. Particularly he detested "buttonhole" appendicectomies. "Flash", he would say, "no wide field for inspection. Better to have a good field than be pulling things about blindfolded!" I remember him saying: "I never read novels—waste of time. I read Cunningham's 'Anatomy' for at least a quarter of an hour a day. That's not a waste of time", as any candidate in "Mac's" fourth year surface anatomy "viva" could well verify. "I don't like music other than a simple Scot ballad."

While operating he quietly grunted to himself; in between he would converse pleasantly and widely. In any particular difficulty he just grunted. He amiably tolerated rude chaff and criticism from the late Professor Watson, of Adelaide, when he came to the theatre as a visitor.

I had a letter from him on his eightieth birthday. He said that he had many happy memories in his life, not the least of which was the devotion to duty of the Sisters of Charity at Saint Vincent's Hospital, Sydney, where I served him. He was then in Dunoon, a yachting centre down the Clyde west of Glasgow. He had sailed his large yacht there from Jersey. Later he was to sail that yacht to England crowded with Jersey evacuees, the Nazis being on their heels. Farewell, Sir Alexander, may your anchorage be as Euripides made Peleus say: "Thou hast come into a windless haven's calm."

Dr. John Storey writes: Having worked with the late Sir Alexander MacCormick for many years from 1910 onwards, I never ceased to be a great admirer of his judgement and operative dexterity. To watch him work and then to see the efforts of any other surgeon was like hearing Dame Nellie Melba sing and then to listen to a second rate music hall artist. His judgement was uncanny. One can remember him once putting an exploratory needle into a patient's pleural sac, obtaining nothing in the syringe, withdrawing the needle and announcing firmly: "He has a suppurating hydatid of the lung." Thereupon I asked: "How, sir, do you know?" Came the reply: "By the smell." Next morning after the operation the dear old man chuckled and said: "Do you think you will know the next one?"

As another example of his wisdom may be mentioned the case of a man who was brought to "The Terraces" with the abdomen distended like a football. Sir Alexander took one look at him and said: "If I open the ascending colon he should be relieved." Although the patient's hands and feet were blue and cold, a right lumbar colostomy gave him instant relief, and three weeks later Sir Alexander excised the splenic flexure which was the site of a ring carcinoma.

Once I had the responsibility of treating a young man who had a large swelling of his thigh. Sir Alexander sent for me and said: "Storey, it is your duty to cut into that tumour, and if it is a sarcoma, take the limb off through the hip, and I'll come out and help you." Protected by the advice and help of the old man, I incised the swelling which luckily was inflammatory. I remember being advised to tie the femoral artery as the first step.

Personally Sir Alexander was tolerant and unassuming. He could not endure over-conceit or laziness. He taught by example, and what an example!

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[1] This bibliography has been made available by Dr. V. M. Coppleson. It was prepared for him by Miss M. Rolleston, Librarian of the New South Wales Branch of the British Medical Association, and by Mr. E. V. Steele, of the Fisher Library, University of Sydney. The list was checked by Miss E. Dinley, of the Fisher Library. To Dr. Coppleson and his collaborators we offer our grateful thanks.—EDITOR.

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HENRY GILBERT.

WE are indebted to Sir Henry Newland for the following appreciation of the late Dr. Henry Gilbert.

By the sudden death, due to a cardiac catastrophe, of Dr. Henry Gilbert, my old school fellow and friend, the medical profession of South Australia has lost a highly esteemed and a very prominent figure. He came of one of the oldest families in the State, his grandfather, Joseph Gilbert, having migrated from Pewsey, Wiltshire, to arrive in South Australia in 1838. Henry Gilbert was born at Pewsey Vale, the attractive pastoral property purchased and named by his grandfather. He was educated at Saint Peter's College. I can recall vividly his keenness in class and his rapid ascent. The same mental acuity and thoroughness that he showed in his boyhood characterized him during his pre-graduate years and throughout his professional life. He took the M.B., B.S. degrees at the University of Melbourne. When the opsonic index, of now unhallowed memory, was believed to be of great pathological significance, Gilbert and I in 1907 studied the technique of its estimation in Almroth Wright's laboratory at Saint Mary's Hospital, London, where Alexander Fleming of penicillin fame was one of his chief assistants. My association with Gilbert at that time added to my respect for his ability. A year later he succeeded me as partner of the late Dr. Humphrey Marten, and rapidly acquired a large general practice. Although a Fellow of the Royal College of Surgeons of England, later on a Fellow of the Royal Australasian College of Surgeons, he had an impartial interest in all branches of general practice. Consequently he was the trusted "guide, philosopher and friend" of many. His professional attainments were recognized by his appointment as medical attendant to the Duke of Gloucester in South Australia.

It was a lucky day for the Adelaide Children's Hospital when he became a member of the honorary surgical staff. After serving for some years on the Board of Management he rose in due course to be its president, and until the day he died gave constant service. He served on the Council of the South Australian Branch of the British Medical Association, and ably carried out the duties of the presidential office. It was during his presidency that the Post-Graduate Committee of the British Medical Association was founded, and it is largely due to his able guidance that the activities of that committee flourished and attracted the whilom somnolent interest of the University of Adelaide. It was largely Gilbert's initial vision which led eventually to the creation of the important Medical Post-Graduate Committee of the University which is in existence today. For many years and at the time of his death he was President of the Medical Benevolent Association of South Australia. His sound business instincts, coupled with his sympathetic regard for those in need, formed a happy blend.

He served in the first world war, and his three sons saw active service in the recent one. Gilbert was much interested in sport. He was fond of tennis, and in his day was an intimidating left arm bowler. He was ninth man for the Melbourne crew in an inter-university boat race which rowed on the Paramatta. Henry Gilbert set a high standard of professional integrity, and his life may well serve as an example for those who are to succeed him. By his marriage to Winifred, the granddaughter of the first Bishop of Adelaide (Short, 1846), two of the oldest families of South Australia became united. The sympathy of his fellow practitioners will be extended to his widow and his three sons and daughter.

Dr. E. Britten Jones writes: Henry Gilbert's death has been a cause of deep regret among members of the medical profession in South Australia, and this applies in a special way to the honorary staff of the Adelaide Children's Hospital.

Gilbert was associated with the hospital for close upon forty years as assistant surgeon and surgeon, and since his retirement from the senior position as consultant surgeon.

His early surgical training—he held the diploma of F.R.C.S. (England)—his honesty of purpose, his basically sound principles, his enthusiasm and his capacity for taking infinite pains, made him a most valued member of the staff of the Children's Hospital. Much as he was respected by all for the above qualities, it was perhaps his high ethical standards, his unwillingness to subscribe to any proceeding that savoured of the experimental, and his genial character that made him admired—and indeed loved—by all of his colleagues who knew him well.

It was largely due to his influence and example that a most friendly atmosphere was engendered among the members of the honorary staff, and that very cordial relations were established between the hospital Board of Management and the medical staff. Both these results have in no small measure contributed to the smooth running of the hospital.

Gilbert was appointed President of the Board of Management in 1933—an office he held continuously until his death. During this period and under his guidance great strides were made by the hospital—an extensive new building scheme was inaugurated and the hospital considerably enlarged. It was a matter of great pleasure to the honorary staff that part of the new building was named "Gilbert Wing", which will remain as a lasting tribute to his memory.

During the recent war Gilbert returned to the active staff of the hospital, doing both in-patient and out-patient work, thus freeing younger members of the staff and enabling them to serve with the armed forces.

In 1936 a Life Governorship of the hospital was conferred upon Gilbert.

He was an enthusiast in all matters connected with the hospital, and when some of the more junior members of the staff decided to form a cricket team in 1929, Gilbert used to attend practice assiduously, and his slow left arm deliveries subsequently proved disastrous to many of the opposing batsmen in the series of matches that were played in the ensuing year. Though Harry Gilbert could give the rest of the team a good start in the matter of years, he seemed to stand up to a day in the field better than some of his juniors; and I am sure no one enjoyed those cricketing days more than he.

The Adelaide Children's Hospital will revere his memory, and his example will provide a constant stimulus to the upholding of the clinical standards set by him, and to the feeling of good fellowship promoted by him among the members of the honorary staff of the institution.

MARGARET HELEN URQUHART ROBERTSON.

WE regret to announce the death of Dr. Margaret Helen Urquhart Robertson, which occurred on December 28, 1947, at Melbourne.

The Royal Australasian College of Physicians.

ANNUAL MEETING.

THE tenth annual meeting of the Royal Australasian College of Physicians will be held at Brisbane on Thursday, Friday and Saturday, June 10, 11 and 12, 1948.

EXAMINATION FOR MEMBERSHIP.

EXAMINATIONS for membership of the Royal Australasian College of Physicians will be conducted in Australia in 1948 in the months of May-June and September-October.

The first examination, to be held in May-June, 1948, will take place as follows.

The written examination will be held on Saturday, May 8, 1948, in capital cities of the Commonwealth where candidates are offering. Only those candidates whose answers in the written examination have attained a standard satisfactory to the Board of Censors will be allowed to proceed to the clinical examination.

The clinical examination will be held in Sydney and, if the number of candidates in Queensland warrants it, in Brisbane prior to the annual meeting of the College in that city. Tentative dates for this examination are therefore:

Sydney: Thursday and Friday, June 3 and 4, 1948.

Brisbane: Tuesday and Wednesday, June 8 and 9, 1948.

Applications to appear before the Board of Censors should be made in the prescribed form and must be in the hands of the Honorary Secretary of the College not later than Saturday, April 10, 1948. Candidates should signify in which city they desire to take the written examination. Application forms are obtainable from the Honorary Secretary, 145, Macquarie Street, Sydney.

The second examination will be held in or about October, 1948, upon dates to be arranged. The clinical examination will, on this occasion, be conducted in Melbourne.

Post-Graduate Work.

COURSES FOR MEDICAL GRADUATES AT MELBOURNE DURING 1948.

THE Melbourne Permanent Post-Graduate Committee announces that the following courses for medical graduates will be held during 1948. Particulars may be obtained from the Secretary of the Committee at the Royal Australasian College of Surgeons Building, Spring Street, Melbourne (telephones: JM 1547 and 1548), unless other directions are given. Application for any of these courses should be made not later than a fortnight before commencement. This should be accompanied by the fee or, in the case of ex-service medical officers, by information that they have been accepted for training in 1948 under the Commonwealth Reconstruction Training Scheme. A ruling has been given that tuition fees for courses other than those for preparation for higher qualifications are allowable income tax deductions. Ex-service medical officers discharged more than twelve months ago, who have applied to the Universities Commission and have been accepted for training in 1948, may attend the courses outlined in this syllabus under their Commonwealth Reconstruction Training Scheme entitlements. Medical officers discharged from the services less than twelve months ago are advised to apply for their entitlements under the Commonwealth Reconstruction Training Scheme for either full-time refresher training or part-time training, either as a refresher or for higher qualifications. The period of application for "tools of trade" entitlements for those discharged more than twelve months ago will expire on June 30, 1948. Inquiries and suggestions as to any post-graduate study are always welcome, and a personal interview with the director is invited.

Intensive Refresher Courses.

Intensive refresher courses have been arranged to coincide with the visit of Professor J. C. Spence, of Newcastle.

General.

A course for general practitioners will be conducted at the various clinical schools from August 30 to September 11, 1948, inclusive. The fee is ten guineas.

Gynæcology and Obstetrics.

The course in gynæcology and obstetrics will be conducted at the Women's Hospital from August 16 to 28, inclusive. Residence at the hospital during this period is advisable. It will be necessary for those attending to provide evidence of absence of streptococci from a throat swab before commencing the course. Arrangements for this investigation are made at the Women's Hospital through the Melbourne Permanent Post-Graduate Committee. The fees are ten guineas for tuition and five pounds for residence.

Country Courses.

A series of country courses will be conducted throughout the year. They will be available to all medical practitioners. The places and dates of the courses are as follows: Ballarat, February 21 and 22; Sale, April 10 and 11; Mooroopna, June 19 and 20; Mildura, August 7 and 8; Horsham, October 9 and 10; Warrnambool, November 20 and 21; Geelong, at intervals from March to October. The fee for the courses at country centres other than Geelong will be two guineas; the fee for the course at Geelong will be four guineas.

Applications for country courses should be made to the secretary of the particular subdivision of the Victorian Branch of the British Medical Association.

Courses for Higher Degrees and Diplomas.

Courses in anatomy, physiology, pathology, physics and psychology suitable for Part I of the examinations for the degrees of M.D. and M.S. and for Part I of the examinations for the D.G.O., D.L.O., D.O., D.D.R., D.T.R.E., D.A. and D.P.M. will be conducted at the University of Melbourne on Monday and Wednesday afternoons from March 17 until August, provided that at least five candidates apply. The fee for each course is thirty guineas.

A course suitable for candidates for Part II of the examination for the M.D. degree and for the diploma of M.R.A.C.P. will commence in the second week of February and will continue throughout the year. The course will consist of clinical lecture demonstrations dealing with medical problems. Two courses of thirteen weeks' duration for Part II of the M.S. examination and for the F.R.A.C.S. will be conducted by the Royal Australasian College of Surgeons, commencing on March 1 and September 6. In addition, the College conducts pathological demonstrations and surgical clinics every Friday afternoon at Prince Henry's Hospital. Particulars of these courses may be obtained from the Secretary of the College, Spring Street, C.1 (telephone: JA 2002).

Courses suitable for preparation for Part II of the diplomas (University of Melbourne) will be conducted by the committee, provided that at least five candidates apply.

Overseas Lecturer.

Professor J. C. Spence, M.D., F.R.C.P., Professor of Child Health at the Royal Victoria Infirmary, University of Durham, Newcastle, will visit Australia in 1948 and deliver a series of six lectures in Melbourne concerned with diseases of children. The lectures will be delivered in the three weeks from August 22 to September 14, and details of the course will be announced later.

Supernumerary Residentships.

A limited number of supernumerary residentships can be arranged for short periods at the various clinical schools on application with due notice to the Director of the

Melbourne Permanent Post-Graduate Committee. The fees are one guinea for enrolment and one guinea per week of attendance. Board at the hospital is additional.

Overseas Post-Graduate Study.

It is anticipated that during 1948 the post-graduate facilities within the United Kingdom for those coming from Australia will be limited. Any graduate intending to proceed overseas is advised to communicate personally with the director, who will be glad to pass on information he has gathered on his recent visit abroad.

Individual Post-Graduate Clinical Study.

Attendance at general or special clinics can be arranged with due notice to meet individual needs. The fees are one guinea for enrolment and one guinea per week of attendance.

Congresses.

THE INTERAMERICAN CARDIOLOGICAL CONGRESS.

THE Interamerican Society of Cardiology has authorized the meeting of the third Interamerican Cardiological Congress, to be held at Chicago, Illinois, at the Michael Reese Hospital from June 13 to June 17, 1948. This meeting will take place immediately before the American Heart Association annual meeting, June 18 and 19, and the American Medical Association meeting the week of June 20. Inquiries regarding the congress may be addressed to the office of the third Interamerican Cardiological Congress at the Michael Reese Hospital, Chicago, Illinois, United States of America.

Correspondence.

BLOOD TRANSFUSION WITH UNSUSPECTED Rh SENSITIVITY.

SIR: The report by D. L. Davies of a case of hæmolytic reaction following a blood transfusion (THE MEDICAL JOURNAL OF AUSTRALIA, January 3, 1948, page 13) draws attention to an avoidable and increasing risk associated with the transfusion or injection of blood.

Such a risk can be controlled by the routine adoption of Rh grouping prior to transfusion. Not only does this prevent one type of reaction after a transfusion; it prevents the development of Rh antibody in an Rh-negative recipient. This may cause a reaction with a subsequent transfusion or, if the recipient is an Rh-negative woman in the childbearing period, may result in an erythroblastotic baby if the father (five to one chance) is Rh-positive.

Rh grouping is best performed by skilled technicians under conditions of large turnover. This enables controls to be maintained and conserves stocks of testing serum.

It has been demonstrated over the past two years in Brisbane that, under conditions of private practice, blood transfusions can be carried out by any practitioner, even in the country, with blood of known A B O and Rh group. The basis of this is the routine grouping (using a finger-prick specimen) of all expectant mothers and their husbands, and the pre-operative grouping of patients undergoing major surgery. The other necessity is the supply, from a sterilizing laboratory, of specially prepared transfusion apparatus.

As a blood group is fixed for life, a practitioner collects a list of donors of known A B O and Rh group in his practice. In case of desperate emergency in an ungrouped patient, a known Group O Rh-negative donor can be used without further testing or cross-matching.

The economics of this routine depend on volume turnover. During the war, A B O groupings could be economically performed at a cost of one shilling and tenpence per test, with a turnover of a hundred tests per day. Turnover at present volume of combined A B O and Rh grouping carries a cost of five shillings.

Under these circumstances, blood transfusion becomes a minor operation which can be used as a preventive measure before parturition or pre-operatively. Mothers can be sent home from hospital with a hæmoglobin of not less than 85%. A possible erythroblastotic baby (1 in 250 pregnancies) can be recognized during pregnancy. The late war showed the value of routine blood grouping. This experience, developed in the light of more recent advances, is applicable to civil life.

Yours, etc.,

"Inchcolm", Wickham Terrace, Brisbane. NOEL M. GUTTERIDGE.

January 9, 1948.

Naval, Military and Air Force.

APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 5, of January 8, 1948.

AUSTRALIAN MILITARY FORCES.

Australian Army Medical Corps.

To be Temporary Lieutenant-Colonels.—Captains (Temporary Majors) NX200502 D. H. Sutton, and is appointed to command 20th Australian Field Ambulance, 4th August, 1947, and VX65418 R. W. E. Hoyling, 7th July, 1947.

ROYAL AUSTRALIAN AIR FORCE.

Citizen Air Force: Medical Branch.

The appointment of Flight Lieutenant J. V. Hurley (257659) is terminated on demobilization, 25th November, 1947.

Reserve: Medical Branch.

The appointment of Temporary Squadron Leader A. C. Blumer (261469) is terminated, 6th November, 1947.—(Ex. Min. No. 4—Approved 6th January, 1948.)

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Richardson, Eleanor Mary, provisional registration, 1947 (Univ. Sydney), 3, Dudley Street, Cessnock.

Whealy, Nicholas George, provisional registration, 1947 (Univ. Sydney), 164, New South Head Road, Edgecliff.

Elton, Bruce Frederick, provisional registration, 1947 (Univ. Sydney), Canterbury District Hospital, Campsie.

Fewell, Dorothy Grace, provisional registration, 1947 (Univ. Sydney), 26, Rickard Road, South Hurstville.

Rofe, Rosanne Lyle Fulton, provisional registration, 1947 (Univ. Sydney), 67A, Stanhope Road, Killara.

Tillett, John Varnell, provisional registration, 1947 (Univ. Sydney), Landsdown House, Villawood.

The undermentioned have been elected as members of the New South Wales Branch of the British Medical Association:

Carter, Mary, M.R.C.S. (England), L.R.C.P. (London), D.P.M. (Univ. Sydney), "Ulundri", Old Castle Hill Road, Castle Hill.

Day, Prudence Ursula, M.B., B.S., 1941 (Univ. Sydney), "Mourilyan", St. Marys.

Deck, Philip Arnold, M.B., B.S., 1944 (Univ. Sydney), 3, Royal Australian Air Force Hospital, Concord.

Deithe, Noel Harold Ross, M.B., B.S., 1947, provisional registration (Univ. Sydney), 181, Prince Street, Orange.

Elb, Philipp, M.B., B.S., 1946 (Univ. Sydney), 2, Waters Road, Cremorne.

Evans, Jack Lewis, M.B., B.S., 1947, provisional registration (Univ. Sydney), Base Hospital, Dubbo.

Golden, Albert Anthony, M.B., B.S., 1944 (Univ. Sydney), 13, Heydon Street, Mosman.

Gray, Ronald Wallace Menzies, M.B., B.S., 1944 (Univ. Sydney), 75, Woniora Road, Hurstville.

Lachlan, William John, M.B., B.S., 1947, provisional registration (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Reeve, Thomas Smith, M.B., B.S., 1947 (Univ. Sydney), Marrickville District Hospital, Marrickville.
Single, Denise Vallack, M.B., B.S., 1946 (Univ. Sydney), 19, Trelawney Street, Woollahra.

The undermentioned have been elected as honorary associates of the New South Wales Branch of the British Medical Association:

Ackary, John F., 8, Leichhardt Street, Waverley.
Andria, Brian Maxwell, 45, Wrights Road, Drummoyne.
Gyton-Brown, Trevor John, 58, Kingslangley Road, Greenwich.
Brustolin, Nerino, 54, St. Alban's Street, Abbotsford.
Callaghan, Ronald A., 70, Georges River Road, Croydon.
Colman, Robin Reuben Simon, 5, Elliott Street, North Bondi.
Cooke, Kenneth Henry Stephen, 141, Sydney Road, Manly.
Conley, Valda Mary, 900, Botany Road, Mascot.
Clowes, Gordon J., Orangeville, Camden, New South Wales.
Comins, Thomas Benjamin, 96, Milson Road, Cremorne.
Cross, Douglas Oakeby, 32, Gordon Street, Balgowlah.
Ford, Bruce Francis, 12, Derby Street, Kogarah.
Friendship, Colin James, 387, Bronte Road, Waverley.
Garrett, William John, 15, Sutherland Road, North Parramatta.
Green, Ruth Helen, 3, Little Street, Lane Cove.
Harrell, Francis Charles, 29, Bellevue Road, Bellevue Hill.
Jennings, John Colin, 9, Weroona Avenue, Woollahra.
Jones, Bruce Littlewood, "Llanassa", 41, Crandon Road, Epping.
Lewis, Ronald G., 19, Boronia Road, Bellevue Hill.
Lewis, Richard John Reynette, 25, Park Road, Kogarah.
Low, Bruce, 21, Waruda Street, Kirribilli.
Miehell, George, 42, Roach Street, Arncliffe.
Newell, Allen Matthews, 3, Soxon Street, Campsie.
Packard, Robert Spencer, 18, Fullerton Street, Woollahra.
Perry, Grace, 37, Langlee Avenue, Waverley.
Rigg, C. A., Commonwealth Bank, 41, Oxford Street, Sydney.
Roche, John Vincent, 21, Alison Road, Randwick.
Shiels, Eleanor Mary, 19, Norwood Avenue, Lindfield.
Shumack, Ian A., 2, Renn Street, Kogarah Bay.
Skein, Marie J., "Clifton", Batlow, New South Wales.
Smith, John Graham, 121, Paddington Street, Paddington.
Tomkins, John Anton, 30, Hanks Street, Ashfield.
Whitington, Ronald Ernest, 72, Ben Boyd Road, Neutral Bay.
Worling, Babette Josephine, 2, Eric Road, Artarmon.

Australian Medical Board Proceedings.

NEW SOUTH WALES.

THE undermentioned have been registered, pursuant to the provisions of the *Medical Practitioners Act*, 1938-1939, of New South Wales, as duly qualified medical practitioners:

Katz, Irene, M.B., B.S., 1946 (Univ. Queensland), c.o. Rev. D. Abourne, 1, Douglas Avenue, Chatswood.
Merory, Paul Heinz, L.R.C.P., M.R.C.S., 1947 (England), D.O.M.S., 1946 (England), 182, Victoria Road, Bellevue Hill.
Rivett, Amy Christine, M.B., Ch.M., 1915 (Univ. Sydney), 149, Macquarie Street, Sydney.
Sapsford, Derek Palham, M.B., B.S., 1939 (Univ. Sydney), London House, Guilford Street, London, England.
Borbidge, Eileen Veronica, M.B., B.S., 1939 (Univ. Melbourne), 2, Clive Road, Eastwood.
Burrows, Arthur, M.R.C.S. (England), L.R.C.P. (London), 1907, M.B., B.S., 1910 (London), M.D., 1913 (London), D.M.R.E., 1945 (Cambridge), M.R.C.P., 1927 (London), F.R.C.P., 1945 (London), 30, Hope Street, Pymble.
Hurley, Desmond Garvan, M.B., B.S., 1945 (Univ. Melbourne), Corowa.
Rabinov, Don, M.B., B.S., 1947 (Univ. Melbourne), 115, Macleay Street, Potts Point.
Ziegler, Joseph Francis, M.B., B.S., 1930 (Univ. Melbourne), F.R.C.S., 1937 (England), F.R.A.C.S., 1939, Wagga Wagga.

The following additional qualification has been registered:

Mallarkey, Stephen Graham, 16, Mayfair Avenue, Beverley Hills (M.B., B.S., 1940, Univ. Sydney), D.T.M., 1947.

Medical Appointments.

Dr. L. V. Carter has been appointed government medical officer at Biggenden, Queensland.
Dr. R. J. C. Dark has been appointed government medical officer at Nanango, Queensland.

Diary for the Month.

JAN. 28.—Victorian Branch, B.M.A.: Council Meeting.
FEB. 3.—New South Wales Branch, B.M.A.: Organization and Science Committee (with representatives of Special Groups).
FEB. 4.—Victorian Branch, B.M.A.: Branch Meeting.
FEB. 4.—Western Australian Branch, B.M.A.: Council Meeting.
FEB. 6.—Queensland Branch, B.M.A.: Branch Meeting.
FEB. 10.—New South Wales Branch, B.M.A.: Executive and Finance Committee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phœnix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federated Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute; Brisbane City Council (Medical Officer of Health). Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

Editorial Notices.

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